



THE ORIGIN
AND
TREATMENT
OF
STAMMERING



GEORGE ANDREW LEWIS



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Founder of The Lewis Phono-Metric Method, Principal of The Lewis School for Stammerers, Editor of the "Phono-Meter," Author of "The Practical Treatment of Stammering and Stuttering."

THE ORIGIN AND TREATMENT OF STAMMERING

(Seventh Edition Enlarged and Revised.)

BY



GEO. ANDREW LEWIS

(An inveterate Stammerer for more than twenty years.)

FOUNDER OF
THE LEWIS PHONO-METRIC METHOD

Registered at patent offices in the United States and Canada.



FOR THE PERMANENT CURE OF
STAMMERING AND STUTTERING

AND ALL OTHER FORMS OF IMPERFECT UT-
TERANCE OF SPEECH AND ARTICULATION

A practical and scientific treatise on the Cause and Treatment of Speech Defects with original illustrations showing the difference between mild and severe types of stammering. Lectures delivered before Elocutionists' Conventions and Medical Societies with suggestions for treatment.



THE EXPERIENCE OF THE AUTHOR AND ENDORSEMENT OF THE
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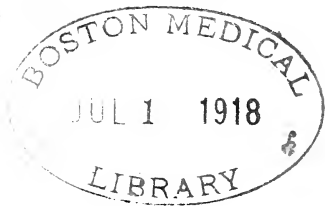
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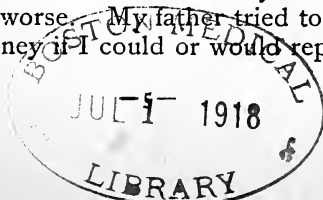
THE AUTHOR'S EXPERIENCE

"Come, I will show thee an affliction
Unnumbered among the world's sorrows." — *Tupper.*

THE earliest recollection of my difficulty carries me back to my infancy. I can well remember my mother taking me to school for the first time, and, with tearful eyes, she told the teacher not to chastise me if I stammered, because, said she, "He cannot help it." From that time until my cure, I cannot remember a period in my whole life when I did not labor to much disadvantage because of my impediment or when I could have said, "I can speak." True, at times I could speak, but always with a mental strain, and there were many times when I was almost dumb. The severity of my trouble was heightened by the fact that some of my relatives were similarly afflicted, or, in other words, I had inherited my difficulty, which made a cure, in my mind, all the more improbable.

In this supposition I have since found I was correct. The organism being predisposed to the development of stammering the defect was planted in the prenatal life, and, therefore, had the force of the unnatural condition as a part of the condition of its own existence.

Several months after my mother had taken me to school she passed away to a better world, after which time, notwithstanding my father and family tried every available means to lessen the severity of my trouble, I gradually grew worse. My father tried to break me off by offers of money if I could or would repeat after him



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words and sentences he would speak,—in vain. My difficulty was rapidly developing into the most severe form of stuttering, a condition where, in my effort to speak, I placed the stress to articulate upon the wrong muscles, thereby causing the rapid repetition of a word or syllable before the following word or syllable could be uttered.

This is the kind of stuttering that many persons mock at and mimic, many of whom have had cast upon their shoulders by Almighty God the weight that they would burden down with ridicule and jest for the poor unfortunate who carries it around. A young man who applied for admission to my Institute told me he had acquired his difficulty by imitation, and notwithstanding the fact that he was of well-to-do parents, who had paid out almost a fortune in their efforts to find relief for him, he said his life had been a blank, the direct result of his own folly and jest.

Let those who mock be careful. Surely the poor stammerer has enough to suffer without bearing the taunts and ridicule of the public.

As I grew older I naturally became more sensitive about my difficulty. My friends and relatives experienced and expressed great sorrow over my condition, which only made me suffer the more, because I knew that those who loved me, and whom I loved, suffered with me.

Should I, by chance, be invited out of an evening to a reception or party, I would many times imagine it was for the purpose of exhibiting my affliction, which

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now began to be accompanied by contortions, lolling the tongue, gasping for breath, and drawing the muscles. If not for the purpose of exhibiting my infirmity, then why was I asked? Certainly not because of my entertaining faculties, nor for my conversational abilities, and as many persons whom I knew held me up to mockery behind my back, and invariably avoided conversation with me except by compulsion, I felt that I was almost alone in the world.

True, many persons were kind to me, and thoughtful, considerate people spoke many kind words of hope and comfort to me. These were a few of the streaks of sunshine that stole into my life, and it is unnecessary for me to say that those persons—may God bless them wherever they are—shall never be forgotten.

Between the age of nineteen and twenty, my difficulty began to change. That rapid repetition of words ceased. The outward manifestation of my trouble left me for a time, but the inward torture I endured was sometimes awful. My impediment was speedily growing worse. In my effort to conceal my affliction, I rapidly developed the mental phase of a most severe type of stammering and added new horrors to my already woeful life. I became almost tongue-tied—dumb as it were; instead of rapidly repeating my syllables I now stood transfixed, my mouth distended like a funnel, my limbs slowly drawing themselves into ungainly shapes, my eyes assuming the meanwhile a glassy appearance. When I had labored in this condition for several moments, overcome by exertion and extreme effort, my nerves all unstrung, I would, as by lightning

impulse, sink back, gasp for more breath and try again with the same results.

I shall never forget the evening I returned home from school, disgusted. Throwing my books in the corner, I vowed and resolved I would never return. What was I to do? My father had not wealth, and I must soon be cast adrift to shift for myself and fight my own battles with the world.

Reader, are you a stammerer? Are you a stut-terer? Have you ever suffered the impatience and ridicule of cruel and unsympathetic people? Those are the moments when we either grow despondent or desperate, according to our individual nature and temperament.

I decided to follow the mechanical arts, and applied myself diligently to the study of mechanics. My skill was soon acknowledged, and, with the offer of a fair salary, I left home the following year, resolved, if travel would reveal to me a balm for my wound, I would endeavor to be healed. Much advice was given me, and many pet theories and methods of cure urged, a few of which I give herewith—Hold a quill between the teeth; keep a pebble under the tongue; whistle just before uttering a word; take a long breath; move the head from side to side, and many such worthless and nonsensical ideas.

For several years I continued to follow my business, saving money in the meantime to enable me to visit the East, where I understood some satisfactory results in cures had been achieved. The mental strain I had suffered and the loss of vitality in consequence

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were rapidly making me a mental and physical wreck. At last I resolved to go and investigate, and resigned my position at Bay City, Michigan, for that purpose. I visited the best schools on the continent, obtaining some relief at an enormous expenditure of time and money.

After hard and diligent application, I used up my surplus capital, and was necessarily forced to seek employment. The relief I had obtained proved but temporary, for occasionally my old trouble would crop up with all its horrors, notwithstanding I continued my exercises regularly, although I did not begrudge the amount of time and money I had spent, as I felt I was now on the trail and would soon hunt down my antagonist.

About this time I was offered, and accepted, a position with I. Herzberg & Bros., wholesale and retail manufacturing jewelers, S. E. corner 10th and Chestnut streets, Philadelphia, Pa. As this store was one of the best appointed of its kind, in the most fashionable business center of the city, I felt that if I could succeed in entirely overcoming my impediment of speech I would be of more value to them, as well as realizing within myself my fondest dreams and aspirations. Could not a method or a means of cure be devised or invented that would entirely and permanently eradicate every trace of stammering? Surely there could, and if so how many others like myself, who had obtained but partial relief, could be set at liberty? How many others, being dragged back as by some invisible monster, whose claws sank deeper and deeper day by day, would thus be enabled to escape?

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The result of my experiment and investigation proved more than I had expected. In the remarkably short period of ten days I found that I had not only succeeded in entirely eradicating every vestige of my former difficulty, but had also evolved a method of cure that must sooner or later crown with new hope the sorrowful lives of many disheartened stammerers.

A new ambition seemed to cast its shadows upon me. I had, by combining the application of my system with the knowledge I had gained in the best schools on this continent for the correction of speech impediments and cultivation of the voice, secured *a method for the cure of stammering* founded upon an educational basis; *a method for the cure of stammering* founded upon the scientific, psychological and physiological laws that underlie and govern the art of perfect speech; *a method for the cure of stammering* that consists in going back to fundamental principles and building up the speech through a course of training founded on a scientific, educational basis; *a method for the cure of stammering* where the pupil not only learns how to speak properly and perfectly, but also to govern and control the will power in connection with the production of perfect speech which relates to the higher nerve centers affected as well as the control of the speaking organs. This means of cure, The Lewis Phono-Metric Method, has the support of not only the best business and professional men in the country, but is also endorsed in the highest terms by well-known schools of elocution and voice culture and by other institutions for the cure of speech impediments.

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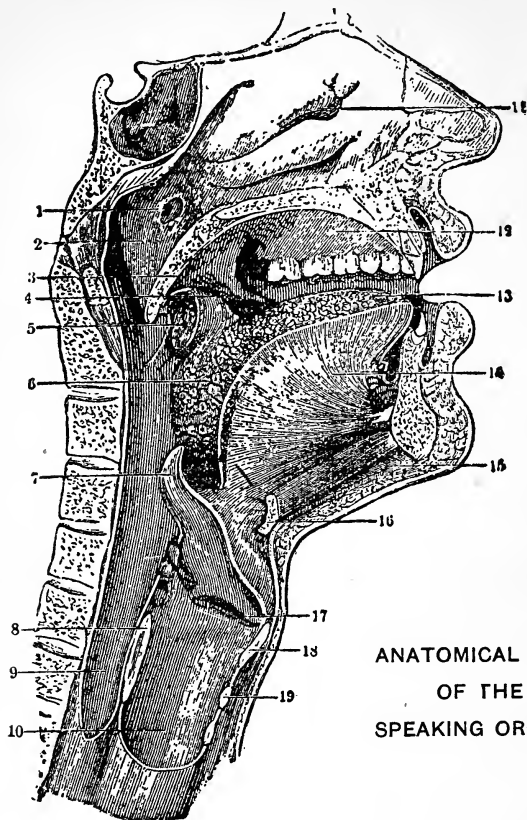
There is no doubt that stammering is a more serious trouble than is generally believed, and although the stammerer in the past has to a large extent been obliged to bear with humiliation the brunt of his affliction, public sympathy is rapidly assuming the place of public ridicule, and the time is not far distant when the cause of the stammerer will appeal to the masses in the same sense as the cause of other human infirmities and demand the recognition it deserves. The blighted lives, the crushed ambitions, the wail of parents in behalf of their children, the tears, the letters of despondency, supplications for help from every quarter of the civilized globe, together with the nervous and physical wrecks that stammering has left in its wake, combine to prove the extent of the stammerer's helpless condition.

I know of no other work in which I could engage to better prove my usefulness to mankind than that of treating the stammerer. Having myself for more than twenty years been obliged to bear the yoke, I can better appreciate the suffering and sorrow of others thus unfortunately afflicted.

With the aim of devoting my entire future life for the benefit of others I have founded my Institution on a basis of HOME AND SCHOOL COMBINED hitherto unapproached, and hope by the continued encouragement of success to extend to hundreds of suffering and disheartened stammerers a new life, crowned with new ambitions. One of God's greatest and most noble blessings is the privilege and enjoyment of perfect and unfettered speech. Very sincerely,

GEO. ANDREW LEWIS.

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ANATOMICAL VIEW
OF THE
SPEAKING ORGANS

1, canal from throat to middle ear; 2, back part of nose; 3, soft palate; 4, soft palate covering tonsil; 5, tonsil; 6, base of tongue; 7, epiglottis; 8, part of cartilage of larynx; 9, laryngeal portion of pharynx; 10, cavity of larynx; 11, nasal fossæ; 12, vault of the palate, or roof of mouth; 13, 14, tongue; 15, muscle beneath tongue; 16, hyoid bone; 17, interior of larynx; 18, 19, thyroid cartilage.

THE ORIGIN OF STAMMERING

BY GEO. ANDREW LEWIS

Lecture delivered by invitation before the members of the Wayne County Medical Society, February 20, 1896, at the office and parlors of Dr. John E. Clark, President of the Board of Education, Detroit, Mich.

PROBABLY no class of unfortunates seeking relief for an affliction has received so little benefit as the stammerer. So much that is erroneous and contradictory has been written and said about stammering and its cure, that persons thus afflicted have become greatly confused, and many who have given much time and study to the subject know not what to think.

The injurious modes of treatment resorted to by surgeons during the early part of the present century, together with the thousand-and-one, or more, useless theories that have since been advanced for the cure of this difficulty by as many charlatans and humbugs, have probably served only to make the stammerer the more discouraged and have crushed his hopes of ever obtaining positive relief or permanent cure.

I shall not attempt to go into detail and describe the many nonsensical ideas that stammerers from time to

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time have had imposed upon them by the countless number of "professors," whose dupes they have been and to whom some of them have paid large sums of money. Many of these persons have applied to us for treatment, after having been thus victimized, and have related to us their former experiences. One stated that he had been treated by correspondence and that he had been obliged to pay in advance for each letter of instruction. Another had paid a large sum of money for a badly mutilated tongue. A third had been told, as a great secret by a traveling "professor" (for which he had paid well), to wash his throat out every night with a gargle of salt and water and sleep with a pebble underneath his tongue. We have his statement for it that he continued to do this with faithful regularity for more than two years. A fourth told us that he had been under the treatment of an advertising physician, and produced as evidence a bundle of prescriptions. A fifth had worn an electrical band around his waist, to which were attached wires connecting with a pocket battery. A sixth had unluckily fallen into the hands of a hypnotist, who guaranteed to cure him in a half hour. A seventh had been placed under a heavy penalty of revealing the secret, and told if she would move her head backwards and forwards every time she attempted to speak she would in this manner open the glottis and the result would be a perfect and continuous flow of speech.

I could go on in this manner and fill a whole volume with the experiences of hundreds of stammerers who have been thus defrauded and victimized by these

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charlatans, from many of whom they received not one particle of benefit, although their experience cost them, in many instances, an expenditure of a great deal of time and money. In fact, I have arrived at the conclusion that persons thus victimized are made worse than they were before their contemplation of treatment. Thus, for years and years, have been practiced different modes and methods for the cure of this distressing malady, the unfortunate sufferer finding out too late that he had been the victim of some dishonest quack, willing to take his money from him regardless of the benefit which he (the stammerer) should derive from the experience.

Scarcely a day passes that we do not receive one or more letters giving a full and detailed account of former experiences through which stammerers thus victimized have passed. Many of our correspondents who have undergone one or more of such treatments without success express grave doubts as to a permanent cure. We never urge or offer inducements to such persons to undergo treatment, but rest the matter entirely with themselves. If our recommendations prove insufficient to convince them of the merits of our system, we furnish them with the names of a great number of persons who have attended our Institute or who know of the success of our work, and ask them to write to any or all, if they so desire, and ask an honest opinion concerning the reliability of our treatment.

I would dwell longer on this cause of distrust did I not believe that enough has already been said.

Professor Herman Klencke, M. D., of Hanover, who

conducted a school for the cure of stammering as early as 1840, and who was probably one of the first to denounce as quackery surgical operations and advance radical ideas for the treatment of stammering, very cleverly draws the following comparison—“Many physicians and ‘stutter doctors’ treat this disorder whose seat and cause they know nothing about. The procedure seems to me,” continues Dr. Klencke, “like that of a person who would attempt to catch up with the bright spot which some one throws in his way by the reflection of the sun on a mirror, and who would strive to tread out the spot or cover it up with his hands.”

Before entering into a discussion of the origin of stammering let us first consider the following definitions:

Aristotle defined stammering as the inability to articulate a certain letter, and stuttering as the inability to join one syllable with another.

Mr. Potter, one of the latest, defines stammering, as commonly used, as “a temporary inability to articulate, the organs being tightly held together; stuttering, as the repeated utterance of one sound before the next can be uttered, both resulting from an inability of the will to control the organs of speech properly, and a deficiency of a ready response to the will by the organs themselves.”

Again we read—“Stammering, the inability to produce certain sounds, or the substitution of one sound for another.”

I quote from another authority, “Stammering is the result of a functional disorder of that portion of the brain which presides over the faculty of speech.”

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A number of English and American writers use the terms stuttering and stammering synonymously.

Dr. Klencke draws the parallel as follows :

STUTTERING

1st. The Stutterer immediately begins to stutter violently when he is observed, and shows a spasmodic fear and apprehension.

2d. He does not betray his defect in slow, measured declamation or in singing, or when talking in syllabic measure.

3d. He exhibits an agitation of his respiratory organs and congestion of the blood in the chest and head, which is increased in proportion to his efforts to overcome his difficulty, and there appears a convulsive action of the chest, throat, and head.

4th. He can correctly form all consonants as separate sounds, without a loud tone or in a whisper, but begins at once to stutter if he attempts to join certain sounds with the voice or with a vowel. His voice evidently fails by the wrong action of the mechanism of the muscles, respiration, and voice function.

STAMMERING

1st. The Stammerer usually speaks better when he is observed and thus forced to pay attention to himself, and only under peculiar circumstances does he show fear and apprehension.

2d. He betrays his defect when careless, in singing, declamation, and measured talking.

3d. He never exhibits an agitation of his respiratory and blood circulating organs, neither nervous nor convulsive action, and by action of his will he can partly or wholly overcome his defect.

4th. He does not have the least difficulty in the formation of his voice. He betrays his defect as much in loud talking as in whispering, and the combination of his defective sounds with the vowel meets with hindrance.

In addition to the above, Dr. Klencke also gives the following: "Stuttering is a defect which is manifest only in talking and not in singing or declaiming. Its causes lie in the auxiliary organs of speech in the organs of respiration and vocalization, without the articulating organs being primarily affected.

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"Stammering, on the contrary, is a defect which is manifest the same in singing and declaiming as in talking. Its causes lie in the organs between the larynx and the lips, in the articulating organs."

Prof. A. Kussmaul, of Strassburg, says, in Ziemsen's Cyclopedia of the Practice of Medicine, Vol. 14, page 633, "Stammering consists in the incapacity to pronounce the letters properly, while in stuttering there is temporarily a spasmodic inability to vocalize certain sounds, especially the explosive consonants."

The above definitions are but a few of a great number we have been given at different times by different authorities. In fact, such a great number of theories have been advanced, probably for the reason that scarcely two persons experience this difficulty in exactly the same manner or under the same conditions, that the stammerer has been compelled to accept a conglomeration of ideas, concerning the real nature of his malady, and grope his way in the dark in his effort to free himself from his unfortunate affliction.

Stammering has been confounded with stuttering and *vice versa*, in consequence of which a multitude of entirely dissimilar conditions of abnormal speech have been heaped together and designated either stammering or stuttering, a general cure applied, which, in a few cases proved successful. The entanglement became still more increased when the ignorance with regard to stuttering, under which term at one time all other defects of speech were included, stimulated the surgical craze to search for local causes. In consequence of this entanglement of ideas concerning the

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real causes and conditions of stammering there sprang forth as many ideas setting forth numerous methods of treatment. I do not wish to infer that all persons thus interested were impostors, but would rather attribute the mistakes of many of them to ignorance of the true origin of the difficulty. While many errors were thus being made, much good was being accomplished, although the stammerer's tongue oftentimes suffered mutilation and untold misery for crimes of which it was not guilty.

The continued investigation on the part of eminent scientists and physicians in search for an infallible method of cure brought forth advanced ideas, which sooner or later must abolish the crude theories of early investigators.

To the painstaking efforts of a few who gave almost their entire lives to the study of this neglected subject are we indebted for the fundamental principles from which modern methods of treatment have evolved. When I say modern methods of treatment I do not refer to the many schemes and trickeries that have been imposed upon the stammerer by charlatans or pretentious "professors," some of whom knew not the first principle of the correct basis for voice or tone production, and a few of whom have amassed ill-gained fortunes from the unfortunates who were unlucky enough to fall into their clutches. I refer to the methods of treatment and of business dealing entertained by a few conscientious and practical workers, who are endeavoring in behalf of the stammerer to not only crush out the trickery and deception of these undeserv-

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ing persons and bury the crude practices of surgery, but who are striving to give to their fellow men a practical and thorough means of eradication for an affliction that is probably one of the most severe, certainly one of the most neglected, of all human ailments.

Concluding my remarks concerning the difference between the definitions of the terms "stammering" and "stuttering" I give herewith the concensus of opinion of the best authorities of modern times in this country and Europe, supported by my own personal experience as a sufferer from a most severe type of stammering for more than twenty years:—

STAMMERING. The inability, under certain conditions, to articulate, or control the organs of speech, which are usually, under such circumstances, tightly held together, accompanied in many cases, by the substitution of one sound for another.

STUTTERING. A defect in respiration and vocalization, oftentimes causing spasmodic action or the rapid repetition of one word or syllable before the following one can be uttered.

The former is due to a deficiency or lack of exercise and control of mental energy of the will over the organs of utterance, and is usually accompanied by contorting the features, rolling the eyes, or drawing the limbs. The latter, due to an improper manner of breathing and vocalization, is usually accompanied by spasmodic actions of not only the speaking organs, but oftentimes the whole body becomes violently convulsed and contorted.

THE ORIGIN AND TREATMENT OF STAMMERING

Having thus considered the definitions of stammering and stuttering, let us now enter into and discuss the real origin or primary cause of this difficulty. If you will follow me closely I will endeavor to carry you with me through a practical and scientific investigation, and locate, if possible, the real source and origin of stammering. I shall confine my statements wholly to my own practical views on the subject, gathered from years of careful study of recognized authorities and from contact with many persons thus afflicted, both before and since my cure.

We have already determined that stammering is an impediment of the speech. Let us consider. What is speech? Tupper has very appropriately said, "Speech is the golden harvest that followeth the flowering of thought."

Speech may also be considered a means of conveyance. I might quote many definitions for this term, but do not think it necessary. It conveys to us by the most direct means the thoughts of men, and is probably the most important instrument God has given to us. Let us then trace it to its origin, and, by breaking it up into different elements, analyze it to discover, if possible, the original cause of the stammerer's difficulty.

FIRST

Ideas are received, arising either from immediate sensations, or originating in the brain in an abstract manner, and are arranged in proper succession by that organ.

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SECOND

The will determines to give this train of ideas expression in any way it can. So far, the process of action can be called only mental.

THIRD

The stimulation to action of the motive nervous system connected with the speaking organs.

FOURTH

The motive nervous system thus stimulated, generates to action the vocal apparatus, resulting in articulate speech.

Each step is, of course, tributary to the preceding one and as long as all act in harmony, one with another, fluent speech and perfect articulation are the result.

The question now arises—where in this chain do we find the deficiency that manifests itself in the stammerer? Let us go back and discuss the first element considered.

To argue that the elaboration of thought in the brain of the stammerer is deficient and its arrangement for production unsystematic is to argue that the stammerer, intellectually speaking, is not only weak-minded, but also lacking of intelligence. Do we find this to be the case? The fact that many of the brightest and brainest men of ancient and modern times have suffered from stammering is conclusive evidence that stammering is

not due at least to any lack of intellectual power on the part of the person thus afflicted.

History tells us of many notable persons who have stammered.

It is announced that Louis II. of France and Michael II. were both surnamed *Le Begue*, meaning stammerer. Louis XIII. of France was also a stammerer. The Rev. Canon Kingsley was a stammerer. Charles Lamb was a stutterer, and the notable physicians, Viosin, Palmer, Chegoïn, Merkel, Guillaume, D'Alais, Bacquerel, and Cohen were all stammerers. Æsop, Virgil, and Demosthenes were likewise afflicted. Mrs. Inchbold, the famous English actress, was another who triumphed over a difficulty of speech. Mahomet-el-Rasser, King of Spain; Eric, King of Sweden; Admiral Annebant; Tahtaglia, the Italian engineer; Bossy d' Anglas, the painter; Daird; the critic Hoffman; Camille Desmoulin, celebrated French revolutionist and journalist, and Martin F. Tupper, the celebrated English poet, all suffered from stammering, as did also the Hon. Wm. A. Graham, United States Senator and Governor of North Carolina in 1850. Allusions to this disorder are found also in the Bible. Moses was a notable example. The Ephraimites, and those whom Jesus cured of their impediments of speech.

Having thoroughly satisfied ourselves that the defect is not manifest in the first element of speech, let us proceed to and consider the second.—The will determines to give this train of ideas expression in any way it can.—Is the desire to give utterance by physical act to internal thought in any way necessarily lacking

in the stammerer originally? If so, the defect must arise from either excessive or deficient energy or desire, in which case we would find that the stammerer, during infancy, before speech is complete, would be wholly unable to cry. It uses this means of making known its wants, and if the defect originated from a deficient or excessive mental desire, we would find this child, when it attempted to make known its wants, would not only be wholly unable to do so, but would, through its efforts, betray all the symptoms of a stammerer. We usually find, however, that the stammerer as a child does not betray the symptoms of his affliction. It is not until a more complex action is thrown upon his motive powers that his defect is noticeable.

Let us consider the third.—The stimulation to action of the motive nervous system connected with the speaking organs.—My belief is that here in this medium, which might appropriately be termed, the mental energy of the will acting on the accumulated nervous force of the motor organism of the body, exists the original cause of abnormal speech. I believe that there exists in some persons an idiosyncrasy amounting probably to an irritability or sensibility of fibre in that portion of the brain which controls the motions requisite for the production of speech, and that this peculiarity exposes this portion of the brain to be most easily disarranged, with the result that the organs co-operating are thrown into spasmodic action by the ordinary mental desire to speak. The peculiarity would appear to me rather a difference in sensibility than in structure, from the circumstance that very many fluent

speakers if not all persons are, in a measure, liable to the affection. Very powerful causes, such as horror, excessive perplexity, or shame will, under some circumstances, partially paralyze or convulse the power of speech in ordinary persons. The great distinction, however, being that the stammerer requires but a slight cause to overturn the balance of his machinery of speech, while the ordinary individual would require some extreme cause, such as seldom occurs, to affect his fluency, and even then can easily recover again by the exercise of his will and reasoning faculties.

Having by this analysis detected what would appear to be the weak point, let us now proceed to the fourth element and find if there, too, exists any deficiency that would cause stammering. You will at once agree that there is not the slightest ground for the supposition that stammering is in any way attributable to physical defect or direct physical inaction of the vocal apparatus. The effect of the difficulty experienced by the stammerer is, of course, manifest to the observer principally in the organs of speech, yet the real cause of the malady is of a more obscure origin and by no means attributable to malformation of the speaking organs.

From an experience of meeting many hundred stammerers, I have as yet never found one case where the difficulty was attributable to wrongly formed organs of speech. The fact that the stammerer can sometimes sing without the slightest difficulty, can oftentimes read aloud to himself without the least fear of hesitation, and can at times speak perfectly words that give him the

greatest difficulty generally, is sufficient evidence in proof of the above assertion. I do not wish to infer that the stammerer is any different in this respect from other persons. Because he stammers it does not follow that his organs of speech are perfect, but he is no more likely to suffer from malformation of the organs of speech than are persons not afflicted with stammering.

I scarcely think it necessary to offer any further argument in support of my statement that the real origin of the stammerer's difficulty is found in the third element considered. For abstract mind to act on abstract bodily organs, it is necessary that there be a medium. In this medium, I believe, exists the real origin of the stammerer's difficulty. Though hesitation is only a thing of degree from the most fluent speaker down to the most convulsed stammerer, yet, practically speaking, stammering does not begin until hesitation has arrived at such a pitch that the sufferer, by the exercise of his reasoning faculties, cannot collect himself and become master of the situation.

The reason that many children do not betray the affliction of stammering until they have attained the age of boyhood is because in early life the mental desire is not excessive. It is probably the same as in any other child endeavoring to be understood. As life advances mental power develops, and when the child has become sufficiently old to use its mental functions to any degree, it discovers an inability to express itself, either from hesitancy or convulsive action. This difficulty is owing to the disturbance of mental emotion, the child

through original physical weakness* not being able to bear more than the ordinary stimulus of the mind and will without betraying its defect. During the earlier days of its childhood, the mental activity was not as great, and hence the child stammered but little or probably not at all.

The attention of the child is continually attracted to this peculiarity, which soon becomes second nature to it, and added to the original physical weakness, the constantly increasing mental emotion soon overbalances the equilibrium of control, and although the original physical weakness may almost entirely disappear as the child advances in age, yet the difficulty of stammering remains.

It is an impossibility to determine in any case of stammering the exact amount of excess of mental emotion or deficiency of motive power.

Arguing from a supposition that these two influences, mental emotion and motive power, equally distributed would give to a person the ability to converse without hesitation under ordinary circumstances, I will endeavor to demonstrate by means of bodies of comparative sizes the difference between mild and severe types of stammering.

* There appears to exist in many stammerers a condition predisposed to the development of the defect. This idiosyncrasy exposes the brain fibre to easy disarrangement, and the organs co-operating are thrown into spasmodic action by the ordinary mental desire to speak.

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No. 1

This body represents a person who can talk without hesitation under ordinary circumstances. If confronted with embarrassment, excitement, shame, or perplexity, mental emotion would increase to a degree sufficient to overbalance motive power, resulting in hesitation, stammering, or convulsive action.



No. 2

This body represents a stammerer wholly unable to control himself under ordinary circumstances.



No. 3

This body represents a person who continually suffers from hesitation or who is addicted to stammering in a slight degree.



No. 4

This body represents a most violent and severe form of stammering, oftentimes accompanied by dreadful contortions of the face and convulsive action of the muscles and limbs.



No. 5

This body represents the ordinary individual. Such a person would hesitate only under extreme excitement, and would rarely if ever lose control of his speech.



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No. 6

This body represents unusual ability to speak with confidence under the most trying test or circumstances, without the slightest uneasiness or apprehension of imperfect utterance.



The illustrations herewith presented represent but four different classes or degrees of stammering. There will be found to exist as many different degrees of stammering as there are individuals afflicted, as scarcely two persons can be found who experience difficulty in exactly the same manner. The influences, too, that cause the stammerer to betray his defect may be entirely different. One person will invariably stammer when brought into the presence of strangers, but never experience much difficulty among the members of his own household. Another will scarcely, if ever, betray his defect before strangers, but will invariably stammer when in conversation with immediate friends. One person can speak from a platform to a public audience after he has once entered into his subject, the great difficulty being in getting started. Another is able to begin without the slightest apparent difficulty, but will continually stammer when he gets warmed up to the occasion.

While it may be impossible to analyze the different phenomena of cases of this kind, we can without difficulty draw a parallel between two distinct and separate classes. I will call these for brevity and illustration:

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A	B
THE PHYSICAL TYPE	THE MENTAL TYPE

The former (A) is comparatively but little complicated with mental emotion, while on the other hand the latter (B) has probably lost much of the original physical weakness, but from the overbalance of the equilibrium or control, suffers materially from mental emotion and is easily agitated and made worse. Some cases of the mental type, however, retain much of the original physical defect.

The nature of the former is almost entirely due to lack of motive power or original physical weakness, while the nature of the latter is almost entirely mental, the result of continually increasing and decreasing mental emotion. Stammerers who come under the denomination of Class A are troubled continually, more or less, never much better, never much worse, always about the same. Excitement, shame, perplexity, anxiety, embarrassment, or impaired health does not much increase the severity of their affliction, while on the other hand stammerers who might be designated as belonging to Class B experience during certain periods and while under certain conditions, scarcely any difficulty, but when suddenly confronted with excitement, shame, perplexity, anxiety, or when suffering from fatigue, exhaustion, or impaired health, they invariably stammer and sometimes violently.

Mr. A has the ability to address a public audience with as little trouble as he might experience when reading aloud to himself, while Mr. B could read aloud to

himself with perfect ease and composure, but when called upon to speak publicly, owing to his stronger mental emotions, would be wholly unable to do so without betraying his impediment to a very great extent.

The different peculiarities of stammering manifested in persons belonging to either class would fill several complete volumes. The constant apprehension of fear on the subject of speaking entertained by the stammerer keeps his nerves continually in a state of agitation and unrest. His anxiety to speak fluently, the dread and fear that he may not be able to do so, together with the humiliation of an exhibition of his infirmity combine to increase the severity of his affliction. Many persons believe that stammering is the result of nervousness, but a second thought would, I think, convince them that nervousness is more often the result of stammering. This has been my experience, and the proof is evident from the fact that when the stammerer has gained control of his speaking organs, his nervousness has almost entirely disappeared. Having become master of the situation, there is not the least fear or apprehension on the subject of speaking, and thus the one great agitator of his nervous system having been removed, gradually the nerves settle back to a normal condition of rest, giving the once nervous and prostrated sufferer complete self-control.

Persons who stutter usually suffer only in a slight degree from an excess of mental emotion typical with the stammerer.

The physical weakness of the stutterer may almost entirely disappear and yet the stuttering habit remain,

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owing to recollection, carelessness, force of habit, and association.

The origin of stuttering is not generally attributable to the same source as the origin of stammering, and stuttering is more easily conquered and subdued. This is explained by the fact that when the original physical weakness of the stammerer disappears we have left the mental phase of the difficulty to contend with, while with the stutterer we have but to correct an improper mode of respiration and vocalization, strengthen and develop the vocal and respiratory organs and gain an equilibrium of control. This accomplished we have established a foundation upon which to build a cure.

The diagnosis and symptoms of a number of cases that have come under my observation would indicate that not a few persons who stammer and who suffer from excessive mental emotion have also acquired peculiar forms of stuttering. In their strained and labored efforts to give utterance to certain syllables or words they have unconsciously acquired an improper mode of breathing. Losing control of their respiratory organs they become wholly unable to vocalize certain sounds, their efforts resulting in contraction or convulsive action.

Whatever may be the outward manifestation of stammering or stuttering, one who has not passed through the ordeal can form no conception of the mental torture endured by persons who are thus unfortunately afflicted.

CURABLE AND INCURABLE
FORMS OF STAMMERING

BY GEO. ANDREW LEWIS

Paper read before the Michigan Association of Elocutionists at Ann Arbor,
Michigan, January 9th, 1897.

MANY persons appear to think that the term Stammering is synonymous with Stuttering, and that all forms of imperfect speech accompanied by convulsive action or emotion are similar in type. In other words, they do not seem to realize that there is a difference of form in stammering, but regard all forms as stammering, and under this head classify as one many different types. While it may in a general way be correct to classify all under one head, yet, professionally speaking, there are almost as many different types of stammering as there are types of man, and each one has its own peculiar phenomenon.

Before entering into a discussion of different forms, it might be well to make a division or classification.

STAMMERING AND STUTTERING

While we all know that stammering, as generally accepted, embraces both of these forms, yet each has a distinct and separate meaning and can again be subdivided and admits of numerous classifications. Stammering is more often inherited, the result of a predisposed condition; while stuttering, which closely resembles it, takes its origin through nervous weakness. However, this is not always the case, as stuttering is oftentimes converted or allowed to develop into stammering. Stammering is almost wholly a disease of the mind or a mental condition, while on the other hand, stuttering is generally due to an improper manner of respiration or of syllabication, and is largely an acquired or physical condition. When I state that stuttering is sometimes converted into stammering, I mean that a physical condition becomes a mental one. Stuttering is generally accompanied with more dreadful facial contortions and convulsive action of the limbs than stammering, and it is partly for this reason (owing to such intense agony and humiliation over the exhibition of his infirmity) that his case develops into stammering. The fatigue, worry, and exhaustion make his condition a mental one. Sometimes we have to deal with cases of this kind that are under process of evolution, and which we term

COMBINED STAMMERING AND STUTTERING

Stammering never evolves into stuttering, but, as already demonstrated, stuttering, if neglected, oftentimes

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becomes stammering. Persons who suffer from a type of combined stammering and stuttering usually manifest a wrong mode of respiration, are addicted in a slight degree to the rapid repetition of their words and syllables, and yet oftentimes are wholly unable to raise their voice to express a word. My intention is to present to you a number of the most important forms of stammering that are curable and a few that are incurable.

STUTTERING

The stutterer no doubt is responsible for all the ridicule that is heaped upon the stammerer and for all the mirth that some people seem to enjoy over his sad condition. He invariably repeats his words or syllables in rapid and quick succession, and oftentimes resorts to various physical movements, apparently to aid him in his efforts. He pulls chairs, slaps or pounds himself, involuntarily, rolls his eyes, and contorts his features. Strange to say, I have known some stutterers of this type who proved the most susceptible to treatment, and were entirely cured in an incredibly short time. This can only be accounted for from the fact that the difficulty was largely of the physical type, and had little if any mental complication. With obedience to instructions on the part of the patient, and with an ordinary amount of intelligence, any case of stuttering is curable.

STAMMERING

It can be said of the stammerer that he is generally unable to make a beginning. He knows what he wants

to say, but is unable to utter a sound. As already explained, his defect is rather one of the mind than of the speech, the organs of speech merely acting as an outward manifestation of an abnormal condition of the brain.

STAMMERING FROM HEREDITY

Probably the most severe form of stammering, and one of the most difficult to eradicate is that which comes from heredity. Such cases are not by any means rare, as a great number of those with which we have to deal originate from this source. There is not the least doubt but that a disposition toward stammering can be inherited and transmitted from one generation to another, and, in this connection, I will say that I know of one family in which no less than sixteen persons are addicted to stammering. This number embraces brothers, sisters, uncles, aunts, and cousins, and nearly every one of them are troubled similarly. Cases of hereditary stammering in one family rarely bear the same manifestations. The father may be addicted to stuttering of a most violent form, and his son afflicted with a type of stammering that would appear to the observer entirely different. Wherever persons in one family are addicted to stammering, we rarely find two who stammer similarly. In hereditary stammering, we have a condition of the mind that in the beginning is abnormal and which requires mental training and discipline to thoroughly eradicate. Cases of hereditary stammering are common, and with proper treatment and care can be entirely overcome.

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It is generally supposed that stammering itself can be inherited. This, however, is a wrong supposition. A condition, or disposition, favorable to the development of stammering can be inherited, but stammering itself cannot be inherited. If stammering could be transmitted from one generation to another we would find that children disposed to stammer would exhibit their defect at their earliest infancy. This we rarely find, and, in fact, never unless the child so disposed be surrounded with stammering parents and stammering influences. On the contrary, we find in the majority of cases, that the child stammerer (even where its infirmity is said to be due to heredity) does not commence to stammer when it first begins to talk, or, in other words, its stammering does not begin until after it has acquired a perfectly correct and natural manner of talking.

It is said that consumption cannot be inherited. One can be disposed to the development of this dread disease, and the disposition towards it can exist in a whole family. Yet with proper climatic changes and otherwise a means can often be had to entirely prevent its ravages. It can, in fact, be so guarded that all danger, or, at least, danger to a reasonable degree, is wholly warded off. What otherwise would have been a complete wreck can sometimes with care from the beginning be made a robust constitution. This also is true of stammering. From its earliest infancy surround the child who has inherited a disposition to stammer with persons who talk well, never unduly excite it, never tickle it, avoid for it every possible

form of sickness accompanied by fever, never subject it to shame or ridicule, or otherwise place it in an embarrassing position, take it away from every stammering influence and from every person who stammers, allow it to acquire correct articulation and a correct manner of speaking from observation, listening, and mimicry, and look carefully after its health. After it has attained its tenth year guard its morals and habits until its sixteenth year. Feed it on wholesome, plain diet and have it take plenty of out-of-door exercise. After you have done all this you can in nine cases out of ten make a perfect talker out of what otherwise would prove a case of inherited stammering, but which, if properly taken care of from the beginning, can be largely prevented and in the majority of cases entirely overcome.

STAMMERING FROM FRIGHT

While, personally, I know of but few cases that owe their origin to fright, yet statistics prove that such cases frequently occur. I have within my recollection a few cases of this kind, and have generally found that they are of a milder form than other cases of which I have spoken. However, among cases of this kind I remember an extremely difficult one. The parents of the boy told me that during his early childhood he had fallen upon a splinter, which cut his mouth badly and tore away a portion of his tongue. The nervous shock and fright thereby occasioned had caused the child to stammer, and it was only after a long and persistent treat-

ment that we succeeded in entirely overcoming his difficulty. It has been claimed that stammering caused by fright is one of the most difficult forms to cure, but from my own experience in the matter such has not been the case.

STAMMERING CAUSED BY SICKNESS

We not infrequently meet with cases of stammering that began after severe illness. It might be well to state here that in every such case the sickness occasioning the difficulty was accompanied with high fever, diphtheria, scarlet fever, typhoid fever, mumps, measles, bronchitis, etc., etc. The circumstance that it is only in cases of sickness accompanied with delirium that we have the manifestations of stammering would seem to indicate that the fever was wholly responsible for this uncontrollable condition, and largely responsible for the permanent injury effected. We find stammering following severe illness only where the latter is of a feverish nature, which would appear to strengthen my argument that stammering is a disease of the mind. Persons who attribute their stammering to illness sometimes find, upon investigation, that their organism was predisposed to the development of their defect. Although some of their ancestors suffered before them from the defect, they probably would never have suffered but for an illness which lowered their vitality, exhausted their energy, and which gave their predisposed condition an opportunity to assert and manifest itself. In the beginning their motive power to act was not excessive,

but sufficient to establish an equilibrium of control. Through illness, the vital energy becoming reduced, their motive power of action became deficient. The equilibrium of control once overthrown offered an excellent opportunity for the rapid development of their inherited condition. This form of stammering is generally very susceptible to successful treatment.

STAMMERING FROM MIMICRY

My experience has been that fully 25 per cent. of persons who stammer have either acquired their difficulty at the beginning from mimicry or have unconsciously fallen into the habit through association with other persons thus afflicted. At first the habit manifests itself much after the form of stuttering, which, as explained in the beginning, afterwards terminates in stammering. In my experience I have been in communication with many thousand persons who stammer and have personally met a great number. From what they have told me in their letters, and from what I have learned of their cases, a large percentage can attribute their difficulty only to mimicry or to association with other persons so afflicted. Such cases usually rapidly develop during childhood and become chronic as the individual advances in years. You will remember that each case I have cited has been due to some mental disturbance, excepting probably that form which comes from mimicry. This generally is not a form of stammering, but becomes stammering through worry and continued mental agitation of the sufferer. All cases of stammer-

ing are either the result of a predisposed condition, are an evolutionized form of stuttering, or are the result of extreme mental effort or agitation. Many children just learning to talk are made to stammer by overtaxing their mental faculties. The parents, noticing the particularly clear enunciation of the child, endeavor to have it recite long sentences and pronounce extremely difficult words, with the result that this practice is often the beginning of stammering. A child should never be tickled or in other ways made to laugh too heartily. There is a place to draw the line, and parents should avoid making their little ones overstep the boundary. I quote from Professor Hermann Klencke: "Stammering is not independent; it is not a disease by itself. It is nothing that a person can have alone and be well in other respects. It is in every case a symptom, only a reflex action of a predominating mental and physical disease."

In this I think Professor Klencke is correct. We have many different forms and types of stammering, but rarely find a case that is not accompanied with an abnormal condition of the vital force and a consequent functional nervous derangement, the perverse action of innervation and muscle. Cases of stammering attributable to mimicry are generally not difficult to cure, as the condition is largely an acquired or physical one, and has but little of the mental complication.

Speaking of different forms of stammering, probably the most severe type, barring the inherited condition, is what might properly be termed constitutional stammering.

CONSTITUTIONAL STAMMERING

This form of stammering usually accompanies a weakened condition of the whole system, and may be due to overgrowth or by reason of an insufficient supply of vital force. Such persons suffer from general nervous debility, nervous trembling, and weakness of the whole organism. It requires, in addition to the regular course of treatment, the building up of health and the strengthening of the constitution. This can sometimes be accomplished in an auxiliary way by medical aid, but preferably by physical and gymnastic exercises.

INTERMITTENT STAMMERING

Intermittent stammering is a form of constitutional stammering, where the severity of the affliction alternates in direct ratio with the health or physical condition of the afflicted. For instance, these persons find, when their physical condition is good, that they experience but little difficulty, but, on the contrary, when their physical condition is poor, they stammer badly. Sometimes for two weeks they will barely stammer once, while during the following fortnight they will stammer continually and oftentimes dreadfully. In the treatment of intermittent or constitutional stammering, particular stress should be laid upon diet and exercise. It has been said of stammering that it is only a species of moral cowardice, arising from physical weakness. This is no doubt largely true in cases of constitutional stammering. If we improve the physique in every possible

way, we restore the natural bravery of the sufferer. Let him retire early and rise early; take plenty of exercise in the open air and undergo at the same time a systematic course of gymnastic training indoors, under the direction of a competent instructor for the development of his weakened muscles and organs. This aids largely to a successful treatment, and with obedience to instructions, both for his natural defect and for his health, will surely accomplish the desired object.

NERVOUS STAMMERING AND STUTTERING

While all forms of stammering and stuttering are accompanied by nervousness, yet in the majority of cases the accompanying nervousness is due to stammering, and not, as generally supposed, stammering due to nervousness. Remove the stammering and the nervousness disappears. However, we have in a few instances met cases where the nervousness was a part of the man. Professor Klencke says, "This kind of stammering is the hardest to cure and the most common." While I take exception to Professor Klencke concerning its being the most common, yet I cannot say but that it is one of the hardest forms with which we have to deal. It bears a resemblance to certain forms of St. Vitus dance, and is influenced by changes of circumstances, changes of weather, is worse in the mornings than in the afternoons, and is accompanied with facial contortions, active mind, irritable temperament, and lively fancy with forebodings of failure. Notwithstanding the obstinacy of this form of stammering, we have never failed in our efforts to overcome it.

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STAMMERING FROM AN IMPROPER MODE OF RESPIRATION

There is no doubt but that many types of stammering are accompanied by an improper mode of respiration, yet in the majority of instances we find that cases of stuttering are more often associated with this defect than are cases of stammering. However, stammerers of this class are quite numerous. Their chest is usually flat; a deep breath will cause them to cough or gasp. They are averse to contact with strangers and are usually moody and listless. This form of stammering yields readily to treatment.

STAMMERING OF THE MIND

Stammering of the mind appears as a form that takes its origin where hesitation is developing into stammering, and where it is difficult for the sufferer to control his speech by means of exercising his will or reasoning faculties. Such persons are oftentimes termed flighty. They enter into any undertaking at once with spirited enthusiasm, and abandon it as readily. They are whimsical and erratically engage in every undertaking. Their ideas travel faster than they are physically able to execute their thoughts, which not only enters into their every-day life, but is also largely manifest in their conversation. They begin to talk, and before they have finished one word they begin the syllable of the word following. Before they have made sense of one sentence, they begin another on probably

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some entirely different topic. Their words are disconnected and their sentences are slurred. When they are closely observed by persons of superior position and rank they become confused and talk in a disconnected and illogical manner. With the strictest discipline their difficulty can be entirely overcome.

STAMMERING THROUGH NEGLECT

There is not the slightest doubt but that a few persons who stammer or stutter have gradually allowed the difficulty to grow upon them. They do not realize the importance of correct articulation, and allow themselves to hesitate, mispronounce, and slur their syllables. In the beginning it is probably nothing more than hesitation, but what when they have lost the moral mastery over it? It then becomes securely fastened to them, not to be shaken off. These cases are common, and are worthy of attention. As difficulty of this kind is largely of the acquired or habitual character, it can, with proper treatment, be entirely eradicated.

THE SENSITIVE STAMMERER

All stammerers are more or less sensitive. The majority of them are more, and I have known a few who were less. As a stammerer, I was extremely sensitive over my infirmity and remember once having severely punished a young fellow who imitated my contortions. They do not want you to speak of their affliction, and must be approached in a very cautious manner. Of all

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classes of afflicted humanity, I think the stammerer is the most sensitive. Among them there is a form of the difficulty that is accompanied with an extremely sensitive temperament. We do not find that this makes the case less responsive to treatment, as the stammering disappears with the sensitiveness when the patient is put under treatment.

NASAL STAMMERING

Just at this point I wish to call your attention to a form of this difficulty which might properly be termed nasal stammering. This kind of stammering is not by any means rare, and has generally been considered as not the easiest type to cure. The sufferer, instead of allowing his words to pass out through the mouth in the natural manner, throws his head back and forth with convulsive action. There is a peculiar nasal sound, and the air, which should pass through the mouth, is forced out through the nostrils, giving the words an unnatural and rather disagreeable utterance. All forms of nasal stammering can be readily overcome and entirely eradicated.

SILENT STAMMERING

Silent stammering is common, and is often termed "Stoppage in Speech." There is no facial effort or other observable indication of speaking. The effort is wholly a mental one,—not even the expression of the eye or a muscle of the face indicating the struggle

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within. The word, when it does come, is often mispronounced or pronounced in an incoherent manner. If allowed to repeat the sentence, the speaker will pronounce his words perfectly, but usually it requires several consecutive trials. When you ask him a question suddenly, if embarrassed he will stand perfectly transfixed, unable to utter a word. This form or type of stammering has many peculiar and interesting phenomena in connection with it, and often enters into various other combinations. It can be entirely overcome with proper mental training in addition to the general course of treatment.

BOISTEROUS STAMMERING

Contrasted with the silent stammerer we have the boisterous stammerer. This man tangles up his words in a most fearful manner, gasps for breath, utters various hissing and gurgling sounds, and throws himself constantly back and forth, or from side to side, stammers often, contorts his features and muscles, and otherwise makes himself generally obnoxious. While this form of stammering is apparently severe, yet it oftentimes happens that it is very easy to cure.

CONTINUED STAMMERING

While all forms and types of stammering are to a greater or less degree continued, yet there is a distinct form which can be described only under this heading. The continued stammerer is an inveterate stammerer.

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He always stammers and stammers always. There is no change in his manner of stammering from one year's end to the other, or even from one day to the next. Unlike the intermittent stammerer, he never experiences spells when he talks easily and when he talks worse. Climatic changes, changes of health, excitement or embarrassment do not enhance the severity of his impediment. He has no particular words or sounds that give him great difficulty, but all words and all sounds bother him equally. He is not insensitive, yet he is not as sensitive as persons of the intermittent class. Such cases of stammering are rare, and I have met comparatively few of them in my experience. However, those I have come in contact with have been entirely successful in overcoming their defect.

THE DESPONDENT OR SORROWFUL STAMMERER

All stammerers are despondent at times, and the majority of them are sorrowful, but there is one class among them always despondent and always sorrowful. They appear to carry around with them the burdens of the whole world. They are moody and whimsical, their spirits rarely rise above a certain level. That level is the point where sorrow can be turned into joy. George Eliot, speaking of the secret sorrow, says, "These things are often unknown to the world, for there is much pain that is quite noiseless. Many an inherited sorrow that has marred a life has been breathed into no human ear." They are not always burdening you with their cares and troubles, but appear

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to prefer to suffer in silence. They talk but little, probably because they are unable to talk well. Occasionally you will come upon one who, unlike the others of his type, will continually seek to tell you of all his cares. He rarely, if ever, tells you anything of a cheerful nature, and is not much interested in anything cheerful you may tell him, but talk to him of anything sorrowful and he is at once interested. It reminds him of something he has heard before, but the tale he will tell you will be the more sorrowful of the two. Such persons usually require rigid discipline, and should ever be encouraged in that which is cheerful and never provoked.

INCURABLE FORMS OF STAMMERING

Two gentlemen called upon me at my Institute with a young man, stating that they wished to place him under treatment for stammering. They had been referred to me by one of the hospitals of Detroit. After making numerous inquiries of the father, I addressed my conversation to the boy. I asked him how old he was. He replied that he didn't know. "Why, yes you do," said the father, "you're thirteen," and the boy shook his head. I inferred that the boy was unable to say thirteen, and asked him again to tell me how old he was. He still shook his head and refused to reply. Notwithstanding the requests of his father and my earnest solicitations, nothing could induce the fellow to say thirteen. He would not even make the attempt. I have no doubt but that he could have said it with extreme

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effort, and explained to him that I wished him to try, in order that I might gain a better knowledge of his difficulty, but to no effect. The young man was unusually large of his age, and might have been taken for a boy of eighteen. His father took me into an adjoining room and told me that the boy had a large pocket knife in his possession, and that if I could get him interested in talking about the knife, I could probably gain an idea of his stammering. Strange to say, the only subject the boy would talk upon was the knife, and it was indeed pitiful to listen to his vain efforts at talking. He stammered worse, I think, than any person I had previously come in contact with, and the contortion of his face was extremely painful. I asked him a number of questions regarding his knife, and he endeavored to explain its utility to me. It had a number of blades for special purposes, and he became extremely enthusiastic over its use. I tried to draw him out on other topics, but he would talk of nothing else but his knife. I had not the least hesitation in pronouncing his case an incurable one. Among persons who stammer, as well as among persons who do not stammer, we find people who have not the ordinary amount of intelligence. Such persons, among stammerers, although rare, are incurable.

I discharged a gentleman from my treatment once and pronounced his case an incurable one, not because he had an insufficient amount of intellect, but wholly for the reason of disobedience. He was a man of between 35 and 40 years of age, and one of the most severe cases of stammering you can imagine. During the first ten days of his treatment, he was extremely enthusiastic,

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but inclined to be unruly and hard to discipline, which culminated in open disobedience to my instructions. He would rarely, if ever, disobey in my presence, but upon dismissal from the school, would act in direct disobedience to my wishes. One of the principles we enforce in our school during treatment is the total abstinence from the use of tobacco and liquors. While I have no direct knowledge that this man used the latter, still I do know that he smoked constantly, and I have every reason to believe that he was also addicted to the liquor habit. We rarely come across a pupil who will openly disobey our instructions, but the instance I have pointed out is one case that I think can be counted an incurable one. Incurable cases of stammering are very rare, and can be classed almost wholly under the two headings, Disobedience and Lack of Intelligence. Any case of stammering, no matter how severe, is curable with proper treatment, obedience to instructions, and the ordinary amount of intellect to back up the exercises.

CHILD STAMMERING

A paper read before the Michigan State Association of Elocutionists at their annual Convention at Grand Rapids, Mich., December 18, 1897.

I HAVE known of very few child stammerers. In other words, the great majority of so-called stammering children are, correctly speaking, stuttering children.

Stammering takes its root in the early life of the child, in the form of stuttering, from which afterwards develops a mental complication, commonly termed stammering. There is, however, sometimes found an exception to this, inasmuch as I have known a few children who apparently had all the symptoms and conditions of stammering, but in the large majority of cases stammering does not develop until stuttering has first ravaged its victim. The fact that stuttering is largely manifest in so-called stammering children, and stammering more often found in grown persons, is no evidence but that stuttering may also be found in grown persons, and stammering found in children.

The child stutterer does not always develop into a stammering adult, but in nine cases out of ten such is the case, unless something is done in early life to prevent this evolution which often takes place.

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I have spoken of stuttering and stammering, and in order to make myself more clearly understood, I will briefly define the difference between these two terms. Webster and others use them as synonyms. It has been found, however, that while one bears a relation to the other, there is, scientifically and technically speaking, a wide difference between them. Stuttering is physical, stammering mental. Stuttering in a sense is to stammering what the lamb is to the sheep, the gosling to the goose, the fawn to the deer. I make this statement in a general way, as there are some cases of stammering to which this comparison will not apply. In such persons of hereditary tendency toward stammering, the first appearance of the defect is in form that of stuttering, which usually rapidly develops into the awful condition of the stammerer. The original defect is planted in the prenatal life of the child and there lies slumbering in embryo, waiting only some mental agitation to arouse and awaken it. The torch once applied the mischief is done. The manifestations at first are in the large majority of cases those of the stutterer, which at this age could be easily smothered, but as the child advances in years its defect grows upon it. The mental agitation increases in proportion to the mental problems of life, which are daily thrust upon it, and thus in contrast, as the rosebud in time unfolds to view the beauty of its hidden loveliness, there develops in the mind of the stammering child as he advances in years those abnormal conditions which lead to the awful tortures of stammering. We know of many cases of stammering, and know of as many attributed causes. One

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says his stammering originated from fright, another from sickness, another from mimicry, another from association, another from accident. Nearly every stammerer attributes his stammering to different causes, and yet in the large majority of cases they can all be attributed to one origin. These so-called causes are merely aggravations which serve to awaken that which already existed, but which was dormant. It may have existed as a result of heredity, or it may have taken its origin from an unknown source. At all events, these cases of stammering that are said to have originated from fright, mimicry, association, sickness, and many other causes, are but the external manifestations of an abnormal condition of the mind which had previously existed unmanifested. Anything that affects or agitates the brain of one predisposed to the development of stammering is likely to cause stammering, or rather I should have said stuttering, as I have explained that the large majority of so-called stammerers were in the beginning nothing more nor less than stutterers. Speaking of the child stutterer, it is not by any means difficult to cure, but the child stammerer is not as easily managed.

I have spoken of stammering, of stuttering, and of combined stammering and stuttering. Stuttering when found in grown persons is generally a form which has been acquired. Had it been of hereditary origin, it would no doubt have developed into stammering before the age of manhood. Stuttering is largely physical, and not by any means difficult to cure. We have had several cases of lifelong stutterers who have been entirely cured in

less than two weeks. One of these cases, at this writing, has stood the test of three years, another a year and a half. Such rapid cures, however, are exceptional among cases of stammering, which have usually required a longer period. The difference in the time required to effect a cure in cases of stammering and those of stuttering is accounted for in the following manner: With stuttering we have but the physical to deal with, while with stammering we have both the physical and mental. Stuttering is largely due to a wrong manner of breathing and respiration, and is manifested by the rapid repetition of words and syllables, oftentimes accompanied by convulsive action of the muscles. Establish a correct form of respiration, make the stutterer talk slowly and behave himself, and you have a foundation laid upon which to build the cure. Not so, however, with the stammerer. With him we have added to an abnormal manner of breathing and respiration the mental phase of this difficulty, and thus when we have entirely overcome the former we have left the latter complication to deal with. Since stuttering, which is not by any means difficult to cure, is more often found in children and stammering more often found in adults, it becomes parents to arrest the stuttering habit in their children before the difficulty develops into stammering, with all its mental complications.

1 Age has but little to do with the chances of recovery in any case of stammering, as much depends upon the application of the pupil to the duties required of him and his aptitude and comprehension. Entirely satisfactory results can rarely be obtained in children less than ten years of age. However, at the age of ten and after-

wards, if the child is intelligent, every vestige of its impediment can be entirely eradicated. Children are imitative, and thus they readily pick up the work of the classes. Quintilian says, "Before all, let the nurses speak properly." The child will hear them first and will shape its word by imitating them. No child should be kept under the influence of a stammering parent. We find in nearly every case where one of the parents stammer, at least one or more of the children are similarly afflicted. Sometimes whole families stammer. I know of one family where father and mother stammer, every one of their children stammer, their grandchildren stammer, and one of their great-grandchildren stammers. If possible, which is rarely the case, the child of the stammering parent should be adopted into another family, where it will not be brought into association with the habit of stammering, until it has passed its fifteenth year. There is then but little danger, as but a small percentage of persons commence to stammer after that age. We might expect the child of stammering parents, which is brought daily in contact with this awful habit, to imitate what it sees. Old Roger Ascham says: "All languages, both learned and mother tongue, are gotten and begotten solely by imitation, for as ye used to hear so ye learn to speak. If ye hear no other ye speak not yourself, and whom ye only hear of them ye only learn." Thus, what can we expect of a child, predisposed as it may be to the development of stammering, surrounded with every persuasive stammering influence and in other ways subjected to the exposure of this contagion? We can only expect that it will stammer, which we find to be the

result in nine cases out of ten. I speak of it as a contagion, from the fact that many of these stammering children would never have stammered but for having been brought into contact with it from association with their parents and otherwise. When only one of the parents stammer, their children oftentimes escape it. Where both parents stammer the doom for their children is inevitable. I have known of several such unfortunate cases and the results have always been the same.

Children who are thought to be disposed to the development of stammering should never be severely punished; they should never be subjected to fright or danger. They should be kept away from any person so afflicted and should be carefully protected from all kinds of sickness accompanied with fevers, such as measles, mumps, scarlet fever, diphtheria, whooping cough, etc. Such forms of sickness, by lowering the vitality of the child and by agitating the brain, are likely to bring to the surface that which lies slumbering in a dormant condition.

The temperament of the child who suffers from either stammering or stuttering is usually an active one. I wish also to say that while nervousness is sometimes associated with stammering, during the child life of the sufferer there is but little nervousness observable. I do not believe the stammerer, as a child, is more nervous than children not thus afflicted. It is probably owing to his stammering that we notice his nervous condition. When he grows to boyhood and becomes sensitive over his infirmity he begins to show signs of nervousness, he feels humiliated over his stammering, is laughed at by

other boys, is pushed aside at every turn, until at last, like a hunted deer, he turns upon his antagonists and tries to defend himself. He finds, however, that he is one against many, and, as is often the case, withdraws himself from every social and pleasurable pastime. As a result of his suffering and of the continued strain from making an exhibition of himself, his nerves become unstrung, he continues to suffer from day to day, from month to month, from year to year, until at last the equilibrium of control is overthrown and his nervousness becomes a part of the man. Thus it is that all persons who stammer are nervous. As a proof of this, we find that when a stammerer is cured his nervousness rapidly disappears. The fear and humiliation of stammering taken from his mind his nerves gradually settle back into a relaxed condition.

I have been asked what I would do providing I had a child who was predisposed to the development of stammering. This question is rather a complex one to answer, from the fact that what I would do other persons might not feel disposed to do. In the first place, a child, whether disposed to the development of stammering or not, should be kept separate and apart from every other person so afflicted. If the parent of the child stammers, and there is no way to separate them, all further advice would be useless and worthless. A stammering child, until its impediment can be corrected, should never be allowed to attend public school, nor any other school where it will be brought into contact with other children. This is beneficial alike to the stammering child and also to its associates with

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whom it comes in contact. It is applicable to the stammering child from the fact that a cross teacher and the teasing it may receive from the other children will serve only to aggravate its difficulty and confirm the habit. It is deleterious to any child, whether disposed to stammering or not, to be constantly associated with stammering. Those of you who have a knowledge of child life know that any child hearing another stammer may endeavor to imitate it, and may either acquire the habit or receive a vivid mental impression of what it has heard. Children are great imitators. It is largely through their keen imitative faculties and imaginative mind that so many of them acquire such a store of knowledge at such an early stage of life. Do not allow your child to imitate or mock a stammerer, nor should stammering children be thrown in contact with other children not so afflicted. Never laugh at, tease, nor scold a child because it stammers. A man brought a little boy to me and asked my opinion and advice regarding its impediment. I motioned him into the parlor and requested him to be seated, at the same time giving a chair to the little boy. The child was about seven years of age and a bright, apt little fellow. After talking with the father for some minutes relative to the boy's stammering, I turned and asked the boy his name. Like many children of his age, the boy acted rather timid and seemed inclined to shrink away from my question. He made an effort to speak, but was unable to do so. He stuttered and stammered terribly. "Come," said the father, "spit it out or I will make you." "No you won't," I answered, "the boy

has more sense than you have." I motioned the boy toward me. Fearful of his father's look, and in response to my kind tone, he came and stood between my knees. "Now," said I to the father, "you go into the adjoining room and leave this little fellow to me, and I will tell you when I have talked to him a little while all about his stammering." I sat the little fellow on my knee and told him of all the sights at Belle Isle, of the animals, the monkeys, of a bicycle ride I had taken the day previous, and many other things I thought would interest him. After a while he forgot the reprimand and cross words of his father, and his timid countenance became radiant and smiling. He told me his name, where he lived, how old he was, his little playmate's name at home, and in many other ways entertained me. During this time he stuttered but little. He told me of many little boyish things, and in a pretty little childlike way. I stepped to the sitting-room door and told the father I was now ready for him, and when he put in an appearance the countenance of the child fell and he once more became timid and frightened. I told the boy's father what he should do and severely censured him for his actions and manner. He took my advice rather reluctantly, but whether he applied it or not I do not know. This much, however, I do know, that by a careful hand, a kind heart, and words of advice and caution, the poor little stammering child could have been very much helped, if not entirely cured. The best friend it ever had in the world unfortunately died, and thus I am led to believe the little fellow will grow up and endure all the miseries

and tortures of stammering. When the stammering child is too young to be sent to an institution for training you can do much for it by treating it kindly. If it needs a whipping give it one, if you believe in whipping, but never whip it for stammering. Do not indulge it on account of its stammering nor give it to understand that it is sympathized with in its affliction. Treat it firmly yet kindly, and never grant it a request until it has asked for its want in a careful manner. Many crippled, blind, and otherwise afflicted children are indulged on account of their infirmity. While I know little regarding blind persons or cripples, stammering children should be given to understand that they are in no way privileged on account of their stammering. Do not treat their stammering as indifferent, rather give them to understand that when they stammer they are breaking one of the rules of etiquette; that it is equally as wrong to stammer as not to remove their hats in the parlor; as wrong to stammer as to go to the table with soiled hands and uncombed hair; as wrong to stammer as to answer "no" when they are asked to do an errand. In fact, teach them that to stammer is wrong, but in doing so be careful to advise them as to what is right. Whenever you correct or punish a child for a misdemeanor, tell it of its error, unless it otherwise knows, and advise it of the right. Many parents are indifferent to their children, and stammering children are no exception. They whack them about, give them just so many whippings a week, whether they need them or not, send them from the table when company is present, and otherwise

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neglect them. Whatever you do, don't belittle a child, especially if he is a stammering child. On the contrary, make him your equal, your associate, and by proving your interest and friendship in his welfare you will make him your lifelong friend. If the parents of stammering children would advise their children in a kindly manner, correct them when they make an error, caution them that they must not stammer, and in many other ways treat them with firmness and a kindly spirit, there would be but few stammering men and women during the next generation.

DIAGNOSIS AND TREATMENT
OF
OBSTINATE CASES OF STAMMERING

FEW persons understand how to correctly diagnose a case of stammering. In fact, so little is known of the disease except by a limited few who have made the subject their life study, that I doubt if any of my readers, physicians and teachers included, have ever attempted it. Before a stammerer determines upon a course of treatment, whether under a private tutor or at an institution, he should first take pains to see that his case has been carefully studied and correctly diagnosed. His counselor should know every peculiarity of his infirmity before the first step is taken toward radical treatment. Otherwise he will be in as bad a condition, as far as the chances for his recovery are concerned, as the man who would submit himself to a critical operation for a hidden tumor, allowing his surgeon to cut and hack his body to pieces in a vain endeavor to locate the seat of the trouble. Fortunately, however, contrary to the general rule of treating stammering, the skillful surgeon, before making an incision with his

knife, knows well what he is about to do. He has thoroughly studied his patient's trouble and has made a thorough diagnosis of the case.

This should also be done in every case of stammering where successful treatment is contemplated. There are no fewer than twenty or more entirely different and distinct types of stammering and stuttering, and there is no set plan or code of rules or exercises that will apply to all cases alike. Each case, while treated from a common basis, must also receive individual care and instruction, according to the indications and manifestations apparent. Temperaments are not all alike and dispositions vary. Thus, a treatment, in order to be successful, must not only aim to establish a fixed rule, but will also require to adapt itself to each and every varying case. With a thorough knowledge of the many different types and forms of stammering and stuttering, the reader can, without much trouble, form a correct idea in any case, and after arriving at a conclusion as to the type of stammering we require only a knowledge of the principles and rules required to establish a cure.

We will discuss this latter at the conclusion, and will give our attention now to establishing a knowledge leading up to the diagnosis of a case.

Let the reader imagine himself with me in the capacity of an instructor to whom Mr. B—— presents himself for consultation and advice. To make the case more interesting I have selected as a subject a man who has called upon me just previous to this writing, and I want you, reader, to come with me into the consultation room, where we will make our investigation and form

our conclusions from which to base the diagnosis of his case.

First, we draw our subject out in conversation. Second, have him read from a book or newspaper. Third, ask him to repeat with us in concert the words and chief obstacles that have proved themselves difficult of utterance for him. We ask him his age, study the manner of action, his ease or uneasiness, his contortions, if any; his respiration, his sitting or standing position, the condition of his health by the appearance of his physique, the tone of the voice, the articulation, the chances or opportunity for physical development, the inclination for using synonyms or for substituting easy words for difficult ones, and thus, by observation and by putting a hundred and one or more questions, we learn all we can about the history of the case.

In answer to my questioning he tells me that his mother and one of his elder brothers stammer. This, of course, would naturally indicate a case of hereditary stammering, but before forming a conclusion we must make a further investigation. He says he did not commence to stammer until after he had passed his tenth year, and states that he is now thirty-two years of age. He has a child (a boy) five years of age, who stammers violently, but who did not commence to stammer until after he had passed his fourth year, up until which time he had talked perfectly. In answer to further inquiries as to the probable cause of his stammering, he says that neither he nor his parents noticed any apparent difficulty in his speech until after he had mimicked a stammerer at the age of ten.

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This adds a new phase to the case. The indications point to heredity on one hand and to mimicry on the other. A question naturally arises. Who can say whether the boy would have ever stammered but for his sin of imitation and mockery?

To arrive at a satisfactory answer to the problem, let us determine whether the case be one of stammering or stuttering, which conclusion in itself will point to the origin or cause.

If upon further investigation we find it to be a case of stammering, we must conclude that its origin is due to heredity; if a case of stuttering, there is a chance that it may be resultant from mimicry.

Stammering takes its origin in a different way from stuttering, the former being purely mental, while the latter is generally the result of habit.

A condition disposed to the development of stammering can be inherited and transmitted from father to son and from one generation to another, and while this claim is also made for stuttering, the writer has never known of such a case.

Stammering is due to an original physical weakness in that portion of the brain which governs and presides over the faculty of speech,* and differs from stuttering in this, that the latter is due entirely to wrongly formed habits of respiration and an incorrect manner of vocalization.

We must therefore conclude, if we can show that our subject's defect is due to heredity, it is a common

* See footnote on page 27.

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case of hereditary stammering, while on the other hand, if shown that his trouble is due to mimicry it would appear as nothing more nor less than a case of simple stuttering.

How shall we proceed to determine whether it be due to mimicry or heredity, upon which decision we shall base our diagnosis?

In answer to further inquiries he states that he can control himself to a degree in the presence of strangers, but that he stammers badly in the presence of his intimate acquaintances or in talking to the other members of his own household. This is an evidence of stammering. The stammerer can, by exercising his will and summoning up moral bravery, control himself before strangers to a remarkable degree; in fact, in this way he is oftentimes wholly able to conceal his impediment. Peculiar as it may seem, he is apparently unable, however, to talk well in the presence of intimate acquaintances. Klencke, speaking of the difference in manifestations between the stammerer and stutterer, remarks that "The stammerer usually speaks better when he is observed and thus forced to pay attention to himself. The stutterer immediately begins to stutter violently when he is observed."

Before further investigating the case before us, allow me to argue an explanation for the above remarkable circumstance that a large number of stammerers can talk better to strangers than to their intimate acquaintances or relatives. When talking to near friends or to intimate acquaintances the stammerer has nothing to conceal. They know he stammers and there is therefore but little, if any, humiliation in committing such an offense. The

will becomes relaxed and with it a relaxation of motive power, followed, as is natural to suppose, by spasmodic action typical of the stammerer. When talking with strangers, before whom the stammerer does not wish to make an exhibition of his infirmity, there is constantly a nervous tension of the mind, an effort toward the generation of will power, and a consequent increase of motive power. Thus follows a temporary better talking, but when relaxation does come the effect is generally depressing.

The labored effort of the stutterer when attempting to talk before strangers is scientifically explained from the fact that the increase of difficulty under such conditions is due to the rapidity of his thought and the rapid succession of new ideas that crowd his brain. The result can be compared to the panic that ensues at a fire in a theater when three or four thousand people attempt to crowd their passage through a four-foot door in their anxiety to get out.

Let us now return to our subject who, in stating that he stammers but little in the presence of strangers and much in the presence of intimate friends, has wound about himself a supporting evidence leading up to a case of stammering. I have asked him whether he can read aloud without trouble in a room by himself, to which he answers that he cannot always do so. This can be taken as a further evidence of stammering. The stutterer can always read aloud without trouble, providing there is no other person in the room and he is unaware of the presence of listeners. An explanation for this is also embodied in the preceding argument.

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His replies to my questions regarding his stammering show considerable contortion of the facial muscles, but unaccompanied by spasmodic action. This would appear as a fourth link in the chain pointing to a case of stammering. The facial contortions of the stammerer are slowly drawn, in which respect they are different to the facial contortions of the stutterer, which usually occur with spasmodic action. The stammerer may distend his mouth like a funnel and keep it in that position, vainly endeavoring the meanwhile to speak. He may drop his head on his chest, toss it back or sideways, or his features may distort to a degree almost beyond recognition. On the other hand he may widely open his mouth in attempting vocal utterance, compress and hold the lips tightly glued together in his efforts to utter closed or explosive consonants, but with all this his actions are in contrast with those of the stutterer, who behaves himself in a more boisterous manner.

In answer to further questioning as to what conditions cause him the greatest difficulty, he tells us that it gives him the greatest difficulty to relate a story or tell of an incident. He was present at the Pullman strike in Chicago, but has never been able to tell what he saw there. This is indicative of a peculiar mental condition found only in the stammerer. The mind, in reaching out for new ideas to graphically portray in words the pictures of the imagination, is drawn away from the careful vigilance necessary to co-ordination and harmonious action of speech, and thus in this way the concentrated effort of the will to speak properly is weakened. The stammerer who is able with care and

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watchfulness to control his speech is oftentimes overthrown when this vigilance is withdrawn. We must conclude, therefore, that this statement on the part of our subject but strengthens the evidence leading up to a diagnosis to stammering.

He says that he does not stammer as badly in argument as in ordinary conversation. This would appear as a contradiction to my previous argument, but peculiar as it may seem, the stammerer is generally able to argue well, especially when he warms up to his subject. This can be explained from the fact that in argument the mind dwells upon what we are about to say, rather than upon the manner in which we are to say it, and thus temporarily our thoughts are taken away from the difficult obstacles that usually present themselves. While the stammerer, as already explained, usually has the greatest difficulty when he relaxes his mind from carefulness of speaking, yet in argument the order of things in this respect is generally reversed. He usually talks better in argument than ordinarily. It is when relaxed and indifferent that he usually has the greatest difficulty. In argument the mind is active. There is no doubt, also, that the desire to win acts as an incentive or generating influence to motive power, and thus affords stimulus of mind sufficient for the proper co-ordination of all the functions and organs concerned in the production of speech.

It would appear, therefore, from this that what would at first seem a contradiction to former arguments can be thus scientifically explained and adds another link to this interesting chain of evidence.

Strange as it may appear to one unacquainted with stammering, nearly all stammerers have their pet words which prove difficult of utterance for them. One stammerer cannot begin the letter "t," while another, who has no difficulty with words commencing with "t," cannot articulate words beginning with "b."

Nor is this difficulty in a single case confined to but one letter of the alphabet, as the great majority of sufferers find equal obstruction in the utterance of different letters. To make myself clear on this point, I wish to explain that the letter of itself does not often cause the obstruction, as most stammerers can articulate any letter of the alphabet separately. It is generally when the letter in question forms the beginning of a syllable or word.

However, there are exceptions to this, as many stammerers are utterly unable to utter the vowels.

These obstructions appear to arise only under certain conditions, according to the condition of the health, the state of the nerves, or the repose of the mind. There is a wide difference among stammerers, scarcely two persons being afflicted exactly in the same manner.

You have heard the old adage that every sparrow is a bird, yet every bird is not a sparrow.

In the same sense stammering is stammering, and while all cases do not bear the same outward manifestations, all are substantially the same, the difference in cases amounting only to the difference in temperaments or in the severity of the case.

The letters or combination of letters upon which one stammers has something to do with determining the

type of stammering, yet no definite conclusion can be arrived at from letters alone.

Our subject whose case we have been examining tells us that words beginning with "b," "t," and "m," prove the greatest obstacles, while words commencing with other letters prove an occasional hindrance.

However, the three mentioned are his greatest obstacles, and he adds that always, unless very careful, he has great difficulty in articulating them. Notice that he says "unless very careful." This suggests that with carefulness he can overcome them, and would appear as an indication of stammering, as we have shown that the stammerer can by the exercise of his will partly or wholly control his stammering.

What shall we say of his difficult letters?

Stammering, it is authoritatively stated, is manifested principally in the articulating organs, which temporarily become glued together. Stuttering, on the other hand, is manifested principally in the organs of respiration, without the articulating organs being primarily affected.

The former is due to a deficiency or lack of exercise and control of the mental energy of the will over the organs of utterance, while the latter is generally due to an improper manner of breathing and vocalization.

Pronounce any word beginning with "b," "t," or "m,"—battle, tattered, master—and we find that it cannot be enunciated without the action of the articulating organs, the organs between the larynx and the lips.

This would appear as an indication of stammering, especially when we note his answer to my next question. He says in his effort to speak he cannot effect a begin-

ning. Sometimes his organs of speech become tightly glued together, at other times there is heard a sound of escaping breath. The stutterer can usually effect a beginning and either with spasmodic effort or otherwise rapidly repeats or mixes up his words.

The stammerer, on the contrary, is usually unable to begin, and either effects a beginning with labored effort of the diaphragm or hisses his words between his teeth. Often his organs of speech become glued together in such a manner as to prevent the utterance of a single sound. The stutterer rarely manifests these conditions, but with convulsive action or spasmodic effort starts his sentences immediately. He may make several attempts but can generally effect a beginning. Thus, when he says that his organs of speech become tightly glued together and adds that at other times he makes a hissing sound or the sound of escaping breath, I take it as a further evidence of stammering. Many stammerers first expel all the air from their lungs, after which they try to talk on exhausted breath. This habit reminds me of the musician who would attempt to get music from an organ after he had allowed the bellows to collapse.

Nearly all stammerers can sing without any apparent manifestation of an impediment in their speech. This peculiarity is accounted for from the fact that in music there is rhythm and meter. There are no abrupt beginnings. All words are commenced in an even drawn manner which appears to be conducive to the harmonious action of the vocal organs. One authority says the stammerer betrays his defect in singing and in measured talking, but from experience I have observed that there are

many exceptions, as only a small percentage of stammerers have trouble in singing. However, where one has difficulty in singing the same as in speaking it may be taken as a positive evidence of stammering. In my experience I have known of only a few persons to stammer in singing. In answer to further questions on my part our subject tells us that he frequently meets with hindrance in his singing, which, as already explained, is evidence of a case of stammering. The stutterer never betrays his defect in singing. He informs us, however, that he can speak fluently and without the slightest apparent hindrance when angry. With anger comes determination, with determination comes will effort, and with will effort comes control. As explained in the beginning of this article, the stammerer can, by exercising his will or determination, partly or wholly control his speech. This explains why when very angry many stammerers speak fluently. The accumulated nervous force and energy under such circumstances appear sufficient to enable him to exercise the required control. The stutterer when angered or excited is thereby rendered powerless to speak, his efforts to do so generally resulting in spasmodic and convulsive action. There are exceptions to this, as we occasionally find a man who presents all the manifestations of the stammerer, but who when angry is confused in speaking, while on the other hand I have found that a few stutterers were able to speak quite well when very angry. It may be generally stated, however, that it temporarily improves the stammerer to anger him, while to anger the stutterer is to make him worse. It is after the anger and passion have

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subsided, when the reaction sets in, that the stammerer becomes worse. The circumstance that the subject whom we have been examining can speak well when angry may, therefore, be accepted as further evidence of stammering. He says in answer to further questioning that he can talk better to persons before whom he does not wish to exhibit his stammering, but that he is oftentimes obliged to use synonyms and substitute words to avoid obstacles. Here we have another trait of stammering. One of our correspondents writes:

“Many years ago in exhibiting to an acquaintance photographs of a number of my relatives and friends, I came upon the likeness of my brother. The word brother was invariably a stumbling-block for me, and this time proved no exception. I did not want my friend to know that I stammered, yet how was I to conceal it. I endeavored to pass the photograph by without explanation in order to avoid an exhibition of my stammering and contortion, which at such times was most pronounced and severe, but to my embarrassment I was promptly asked by my friend whose likeness it was I had endeavored to pass. Stammerer-like, my mind reached out in a thousand directions for a synonym, but there was no other word that I could use. Trifling as the incident may seem, I shall never forget it. My mind became almost a perfect blank when, quick as a flash, I carefully replied, stammering as I repeated the words: ‘That is a picture of one in our family who is next older than I.’ It is unnecessary to explain that my reply provoked an abundance of mirth, at the same time I avoided temporarily by my tactics, as many stammerers do, a most embarrassing ordeal of contortion and wasted effort.”

Our subject says further that he does not lisp, and that his articulation is perfect when he does not stam-

mer. He is of a nervous temperament, with a fairly good physique, cheerful in disposition, subject, however, to spells of melancholy. In summing up the evidence we find that every time in answer to questions the manifestations all point to a case of stammering. It is, I have no doubt, a case of hereditary stammering which might have remained dormant and never would have manifested itself but for his having imitated a fellow sufferer. The condition, no doubt, was predisposed, and required but the torch of imagination to awaken it and develop its dormant qualities. Thus, while it may be said on the one hand that his stammering was due to mimicry, it was on the other hand primarily due to heredity, and will require the same treatment and care as a case of hereditary stammering.

Much has been written and said about the treatment of stammering, and many of those who say and write often know less when they have finished than before they began.

I receive many hundreds of letters from stammerers asking about treatment. One man writes and asks whether he is too old for treatment. Another wishes to know whether he is too young; a third has been an inveterate tobacco user and wishes to know whether this will ruin the chances for a cure; a fourth has suffered from ill health and asks whether this fact will bar him out, and thus I might go on and tell about many different kinds of people who write as many different kinds of letters about as many different types of stammering.

All want to be cured, and all are anxious about treatment. The first question that naturally arises in the

mind of the stammerer is, "Can I be cured and by what means?" Every stammerer asks himself this question, and the question often repeats itself to him. How shall we answer?

It is true that until within the past five or ten years but little advance had been made in the science of treating stammering. Many attempts were made, rewarded with but little success and many failures. A few conscientious men worked hard in the interests of stammerers and stammering, while a countless number of "quacks," "professors," and "charlatans" were apparently working the stammerer and bleeding him for all and more than he was worth. This, I think, has in a large measure had a tendency to make the stammerer skeptical, even at this advanced era of success in treating stammering, as the older generation of stammerers well remember the rough experience through which they passed, and not satisfied with allowing these things to influence them, they throw this skepticism into the minds of their children and the younger generation, with the result that they also in many instances regard a cure as doubtful. This, to me, is ridiculous. In my mind, it would be equally as fair to say that a man nowadays would surely die from appendicitis because his father or grandfather died from appendicitis. Everybody knows that the chance of death from appendicitis (once so fatal) has been lessened to a remarkable degree within the last few years, owing to the rapid strides in science and surgery.

During our fathers' and grandfathers' time the deaf mute was obliged to converse entirely by signs and by

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the use of his fingers. Since then large institutions have been established all over the country, where these unfortunates are taught to converse with oral expression. Note, also, the advance in the use of medicine. Compare the old methods with the new.

In short, comparisons without number could be drawn to show the remarkable advance of science, art, and learning in every imaginable way.

Old fogyisms and old-time ways are being rapidly supplanted by modern methods in almost every science, art, trade, and profession, and thus I claim that it is both wrong and unjust for those who are familiar with the unsuccessful attempts made to cure stammering years ago to allow this prejudice to influence them either in the matter of their own cure or a cure for any other unfortunate.

That stammering has been cured, can be cured, and is being cured, hundreds of living monuments to successful treatment bear testimony. It is true that there are still, and no doubt ever will be, that class of charlatan quacks who never do what they profess to do, but we find this element in every walk of life and in every profession. But this fact should not prejudice the stammerer against those who are truly endeavoring to benefit him.

Would it not be equally as fair to say that all professing Christians are hypocrites because a few are hypocrites? Shall we condemn the many for the errors of a few, or, on the other hand, shall we condemn the few for the errors of the many?

Shall we condemn our reputable and educated physicians because a countless number of ignorant quacks,

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divine healers, and such like, overrun the country, claiming to do what they cannot do, and never doing what they claim to do? Shall we not endeavor to encourage the one and abolish the other?

Shall the skilled mechanic be condemned because a more pretentious fellow-laborer is a botch? Why not, then, apply this argument to reputable institutions for the cure of stammering? One reason I have dwelt so largely upon this prejudice and skepticism, which is apparent in the minds of most stammerers, is this, that I believe that in order for a patient to be cured of stammering he should have every confidence in his instructor, and himself fully believe in a successful termination to his efforts. We find this also in the sick patient. Doctors will tell you that in serious illness the chances for recovery are always in favor of the patient who believes in his recovery. Whenever a patient in a sick room gives up his case as hopelessly lost, the attending physician is handicapped. Hope is everything, but belief is often a reality in itself. This is true especially in the treatment of stammering.

That which may be considered lost may oftentimes be regained by confidence. Confidence in the instructor, confidence in the instructions, and confidence in the cure. Confidence welded with hope is the stammerer's stepping stone to success.

I have many times been asked to state what type of stammering I consider the most difficult to cure. In my opinion all forms of stammering are curable, provided, of course, that the patient is well disposed for treatment and obeys instructions. This disposition for treatment may be explained as an anxiety on the part of the patient

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for treatment, a disposition to do everything he is told to do, and obedience in this, that he will do nothing that he is told not to do.

Age has but little to do with the chances for recovery in any case of stammering. When a child has passed its tenth year it is old enough to intelligently understand and apply all of the exercises necessary in effecting a cure, and not until a man or woman commences to grow childish from old age is that most coveted prize, a cure, a lost possibility. It is largely true with stammering that the earlier we can check it the better, yet, strange as it may appear, many cases of long standing yield to treatment more readily than those of more recent origin.

The type of stammering in itself does not apparently appear as important as the conditions that surround it. By this I mean that the ordinary case of stammering, otherwise easy to cure, might prove difficult if surrounded by unfavorable conditions. These conditions are varied and consist of the health of the pupil, his temperament, disposition, and habits, his belief or nonbelief in the cure, and his comprehension of ideas and application to instruction figure also as important factors in determining results.

Much depends also upon the course or plan of treatment pursued, but more depends upon the application of that treatment. A poor system of treatment well applied will invariably give better results than a good system of treatment poorly applied. A poor system of treatment poorly applied will give absolutely no results at all, while a good system of treatment well applied will give results that are most satisfactory.

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Under such treatment there is no doubt or question but that the worst possible cases of stammering can be entirely and permanently cured. I have spoken of the health of the pupil as having an important bearing in determining his cure. This is true, yet persons in ill health should not be frightened and imagine, because their health is poor, the chances for their recovery are small. The fact of the matter is that the ill health of the stammerer is usually consequent from nervous exhaustion caused by the continued unsettled condition of his nerves and consequent drain upon his vitality. Nervousness is the result of stammering, not the cause, and we find under treatment while the cure is being fastened upon a pupil and his old habit of stammering shaken off, the nervous force and energy gradually return, thereby much improving the general health.

Having personally known of a number of such instances, I have arrived at the conclusion that many stammerers who are constantly suffering from poor health, caused by the disturbed and unsettled condition of their nerves, would grow strong and robust if relieved from this distressing impediment.

While I have said the health of the pupil has an important bearing on the treatment, these ill conditions caused by poor health are entirely overcome by the progress of the pupil under treatment. Any good treatment for the cure of stammering will have as a part of its system a regular course of training for the improvement of the general health of every pupil.

Classes should be graded, and the exercises adapted to the wants of each particular case. This done, and

the pupil properly instructed, an absolute cure will result, even though a pupil when he commences treatment is suffering from poor health, provided, of course, that the condition of his health is not such as to wholly unfit him for his work, that the treatment is rational and modern, and the pupil obedient in the fulfillment of his duties.

I have said that the disposition of the pupil enters into treatment as an important factor in determining the results of his efforts to overcome his trouble. I have also touched upon this subject and defined why and how a pupil for treatment should be favorably disposed, and were it not for the fact that my remarks on this point have been made perfectly clear, I would dwell more largely upon it now. Suffice it to say that any person desirous of overcoming the lifelong habit of stammering, should while under treatment cultivate a cheerful disposition and entertain at all times a kindly feeling toward all. Having touched upon the question of the health and disposition or temperament of the pupil, let us now dwell for a moment on the habits of the stammerer. I am sorry to say many stammerers and also a fair percentage of young men who do not stammer do things in their early youth, the results of which oftentimes cling to them during the whole balance of their lives. These habits are not always at the root of the evil of stammering, but are certainly conducive to it and should be stopped at once. The use of tobacco should by all means be abandoned by every stammerer, as it not only aggravates the evil, but makes the case less responsive to treatment. The use of liquor, especially whiskey, wines, or beer, should

also be avoided, nor would I advise the use of coffee or tea. Anything that acts as a stimulant or which affects the nerve centers should be carefully put aside.

While the temperament and disposition of a pupil under treatment for stammering has some bearing in determining results, the moral aspect of matters must not be lost sight of. Pupils should allow their minds to run only in moral channels and abstain from all those things which corrupt or destroy. When a stammerer decides to undergo treatment for stammering he should at the same time, if he wishes to be successful, make up his mind to undergo, as far as possible, a change in his other habits. If he is already a moral man this of course will be unnecessary. Let him keep his mind pure, abstain from excess of any kind, attend properly to his habits of eating and sleeping and take such exercise out of doors as is necessary for his physical well-being. This is especially applicable to cases of intermittent stammering, where the severity of the case alternates in ratio with the physical condition of the sufferer.

In the beginning of this article I, as far as possible, told my reader how I would diagnose a case of stammering and have subsequently dwelt upon conditions favorable to treatment. This I have done in a general way in answer to many inquiries received from correspondents asking me to tell them how to prepare for a course of treatment in order that they might complete their cure in the shortest time possible consistent with the very best results. In continuing I wish to say that the success of any enterprise for the cure of stammering will largely depend upon the permanency of its cures.

The cure in itself is not by any means difficult to effect. It is the permanency of the cure that bothers many persons, to insure which their every effort appears to be of no avail. Their failure to succeed is no doubt due to their lack of thoroughness and knowledge and their inattention to the little details that go to make the cure complete. Thus it is I have held out a few suggestions which should receive the attention of every would-be-successful student. There has been much sensationalism associated with some treatments for the cure of stammering which I most bitterly oppose. I am not a believer in the theory that Divine Providence is in partnership with any institution or person interested in the cure of stammering. Neither do I believe that the Almighty has selected out any one particular person to cure stammering and that all other persons are unable to perform such "miracles." In fact, I do not believe that there is any miracle-working wonder about it. Matters have even gone so far that an eastern institution advertising to cure stammering makes an open claim to support from God. Who can wonder that all this sensationalism and hypocrisy could but result in evil instead of good. These time-worn ideas, however, are rapidly dying out and the stammerer, already warned against them, is giving ear to more rational theories.

Speaking further with reference to treatments for the cure of stammering, I could name many of the earlier authorities and give a synopsis of their theories, which, however, would prove of no practical benefit to the reader.

Probably the earliest cure of which we have any knowledge is Demosthenes. According to Potter,

Satyrus, the Grecian actor, is said by Plutarch to have been responsible for the cure of Demosthenes, who labored under a weak voice, indistinct speech, and short breath, combined with violence of manner. The generally received notion that the cure of the great Grecian orator was effected by speaking with pebbles in his mouth is not borne out by the historical account, for both Demetrius and Cicero tell us that Demosthenes spent months in training his voice, using a looking-glass during his vocal exercises and applying every power of his will to the conquering of his speech defect, the pebbles being but an incidental part of the treatment.

Celus (A. D. 1-37) describes various means of correcting speech defects. Ætius (600) also blames the tongue. Ægineta did likewise. Avicenna (1000), another early authority, also lays the fault to the tongue.

De Chauliac (1336), a celebrated Italian surgeon, ascribed stuttering to convulsions, ulcers, or other affections of the tongue, to paralysis, or to moisture of the nerves and muscles. His treatment consisted of embrocations to desiccate the brain, cauteries to the vertebræ, blisters, frictions, and "gargarisms" for the tongue.

Mercurialis (15-84), professor at Padua, Bologna, and Pisa, wrote concerning stuttering in his work, locating its cause in the brain and in the tongue and giving it two species, according as it was produced by abnormal dryness or moisture of those parts. His treatment was similar to De Chauliac's with the addition of systematic exercise of the voice and the body.

Canon Kingsley (1860), a celebrated English orator and writer, chaplain to the Queen, was himself a

stutterer until he was nearly forty years of age, and has written at considerable length regarding the affection. Kingsley made many mistakes and laid down many foolish and nonsensical rules. He writes that the cause of stammering in three cases out of four can be traced to conscious or unconscious imitation. In a letter to a young lady he tells her she stammers because her upper teeth, like his, shut over the lower ones, and prescribes a set of fixed rules, the chief of which relates to opening the mouth widely. He considered boxing an excellent pastime for the stammerer. Had he been a Frenchman, Dr. Potter remarks, he would have said fencing—if an American, base ball. Hunt treated stammering successfully in England for many years and wrote a comprehensive treatise on the subject which Dr. Potter says is sufficiently complex to cause a mania of both the auditory and articulating apparatus.

Dr. Klencke conducted an institution in Hanover, Germany, and met with a fair degree of success. In his writings he has advanced a number of different theories regarding the nature of stammering, his ideas of the moral nature of the stammerer being disputed by many other authorities. His patients appeared to be largely of the lower class, or of a low order, but his opinion is worthy of respect from the fact that he had a wide experience.

There was one rational feature in connection with Klencke's method which I heartily endorse and recommend, that is his endeavors to arouse the will of his pupil and keep it in constant action. He also drilled his patients systematically in the technics of speech. Much

might be added of the different methods of treatment and theories of early writers, but all are vague and in a sense impractical. The earlier methods of surgery and superstition have practically died out, and thus it remains for later authorities to advance and carry out more sensible methods of treatment.

After years of careful study and investigation I am convinced now more than ever that only such methods as are educational in character and graded to suit the requirements of special cases can prove efficient. Tricks and secrets are old-time fogyisms. Surgery is no longer employed anywhere. There is no longer room for the charlatan or quack. New ideas, business methods, and modern facilities for treatment have at last proved true the old saying:

“You can fool some of the people all of the time; you can fool all of the people some of the time; but you can't fool all the people all the time.”

HELPFUL HINTS AND EXERCISES

BREATHING, SLEEP, MORALITY, DIET, AND THEIR RELATION TO A POSSIBLE CURE FOR STAMMERING

BREATHING

THERE are many stammerers who do not appear to understand the benefits to be derived from practicing a correct form of breathing. A correct form of breathing cannot in itself, without other principles, establish a cure for stammering any more than a pile of bricks can in itself form a building without mortar or masonry. It may, however, serve as an auxiliary and when combined with other exercises it oftentimes forms a basis upon which a cure may be built. One thing is certain—we cannot produce voice without producing breath. If, then, we have an incorrect manner of producing our breath, what shall we say of our syllables, of our words, and of our sentences? Shall we not go back to the prime disturbance and by the pursuance of a system of

exercises directly opposed to our wrongly-formed habits endeavor to correct the evil and begin anew?

Although the origin of all this disturbance with the stammerer can in no way be attributed to his abnormal respiration,* which is rather a result than a cause, yet we should aim, if possible, to correct the habit and substitute for it a correct manner of respiration. If we can succeed in doing this the chances for the permanency of the cure are largely added to, and we can also count on more rapid progress from the beginning.

There are many benefits to be derived from the pursuance of good breathing exercises. Even for those not afflicted with stammering, but for the stammerer, especially, they are particularly beneficial. Let us for a moment discuss the relation of breathing exercises to a possible cure for stammering. Can we by a pursuance of breathing exercises in any possible way influence or strengthen that which directs and controls all movements of the body—the brain? When we wish to strengthen any function or muscle of the body we exercise it. This granted, can we not by exercising that portion of the brain wherein the stammerer is deficient, improve and strengthen it to a degree sufficient to give the will absolute control over the organs of respiration? For illustration or example, suppose we wish to execute costal breathing. In costal breathing we direct the effort of the mind to the muscles of the sides and by forcing the same to obey the dictates of the will we force them out and allow them to again contract, al-

* Stammering originates in the brain, see footnote page 27.

ways, of course, aiding this performance by means of the pressure of the air within, which we have in the meantime inhaled for this purpose. We repeat this exercise again and again and in so doing not only exercise the costal muscles of the body, but at the same time are also educating the mind to control muscle action. We proceed to other forms of breathing and find in dorsal breathing the will commands the muscles of the back, in chest breathing the muscles of the chest respond to the dictates of the mind. In diaphragmatic breathing we find the diaphragmatic muscle obeys, and hence while the muscles of respiration are being exercised, that which gives the command is also being exercised. In stammering we find as a result of certain existing circumstances the muscles of respiration refuse to obey the dictates of the mind. The will is insufficient; the harmony and co-ordination of the functions and organs concerned in speech production is disturbed and we falter or stumble, but if we educate the mind to control these muscles we find always a ready response to our desires. This is the relation of breathing exercises to a possible cure for stammering.

Another incalculable benefit to be derived from a good system of breathing exercises is the development it gives to the whole body. But you say—what benefit can that afford me? What bearing has that upon a possible cure for my stammering? Would you believe it that nearly everything you do has either a beneficial or deleterious effect upon your talking? One stammerer says: I stammer worse when I am suffering from indigestion; another argues that he suffers worse from the loss of sleep;

another claims that his greatest difficulty comes from cold in the head; another has spasms when brought into contact with strangers; another grows worse from the use of tobacco, and thus I could tell you of a thousand and one or more persons, all of whom suffer worse from this, that, or the other thing. They do not seem to attribute it all to one parent cause.

When you observe a result you may always rest assured there is a cause, and in this cause (the disturbance of the nerve centers of the body) lies the great unhidden law that rules supreme. Anything that upsets the equilibrium of control should be carefully guarded against. He who stammers worse when suffering from indigestion must learn that the whole nervous system of the body is affected by a deranged condition of the stomach and that his excessive difficulty in speaking under such circumstances is but natural, because that which affects the nerves affects also the fluency of his speech.

He who overindulges himself in natural or unnatural excitement must pay the penalty in his talking—because just as sure as the night follows the day, so also does stammering follow a disturbance or agitation of the nerve centers. He who stammers worse when suffering from the effects of a cold must also learn that he is suffering from a disturbance of the nerves. This has been not only my personal experience, but is largely based upon my observation in hundreds of other cases.

The same law that metes out suffering to the stammerer who would disobey its rulings also crowns with laurels of success him who will build up and strengthen his body. Thus, if it can be shown that breathing exer-

cises are beneficial for this purpose, it stands us well in hand to add them to our curriculum of studies. Another beneficial result of the breathing exercise for the stammerer is the additional capacity it gives him for the retention of breath. Breathing exercises also give an upright carriage to the body, develop the chest, and keep the blood in active circulation. In short, they are beneficial to the whole organism, and while they cannot of themselves effect a cure for stammering, they nevertheless serve as an auxiliary and aid us in our work.

SLEEP

The New Year's, 1898, number of the Youth's Companion, in an article entitled "Gladstone at Eighty-eight," attributes the wonderful enduring faculties of this well-known statesman to his capacity for sleep and short naps. During his whole life it is said that he methodically found time for rest as well as work, and thus, unlike the majority of Americans of the same age, Gladstone at that time was well preserved and in possession of all his faculties.

Sleep is curative. Sleep is restful. Every stammering man, woman, and child should observe methodical and regular hours for sleep. In cases of intermittent stammering, where the severity of the affliction alternates in ratio with the physical condition of the sufferer, sleep, above all things, should be earnestly courted. Rest is oftentimes as beneficial as sleep. A half hour's rest or sleep before dinner will serve to strengthen the nerves and refresh the body as nothing else can. Every person

who suffers from stammering should sleep from eight to ten hours in every twenty-four. Do not oversleep, but sleep sufficiently. Too much sleep is as harmful as too little sleep. A good plan to pursue, if possible, is to sleep whenever you feel sleepy, except after eating heartily. Never sleep on a full stomach. You can neither sleep well nor will your food digest well. Always rest for a time after eating, but avoid sleep until your food is well under the process of digestion.

Dr. Felix L. Oswald, in an article entitled, "The Curative Power of Sleep," written for *Health Culture*, New York, says:

"Brain-work succeeds best while the activity of the animal organism is reduced to an indispensable minimum. The mind is never clearer than early in the morning, when the work of digestion is finished; and for similar reasons digestion proceeds most prosperously while the brain is at rest. A correspondent of mine, who is subject to attacks of spasmodic asthma, often passes a whole afternoon on suburban trolley cars, knowing from experience that the rocking motion and the sight of monotonous streets are apt to result in cat-naps, and that the shortest nap of that sort is sufficient to break the spell of the dyspnoea—the distressing difficulty to draw a full breath of life-air.

A mere cat-nap is also sufficient to relieve sick headache, dizziness, spasms of colic, and neuralgia; and protracted slumber—five or six hours of dreamless sleep—has saved more than one life that could not have been as much as respited by all the drugs mentioned in Bartholomew's "Handbook of Therapeutics." Chronic

diarrhœa has been known to yield to that specific, and in many kinds of fevers, too, everything is gained if the patient can be helped to a few hours of deep slumber without the use of narcotics. Monotonous work, purposely continued to the verge of fatigue, may help to relieve insomnia, and in obstinate cases the application of warm winding sheets to the feet and of cool cataplasms to the head will promote the same purpose by alleviating the engorgement of the cerebral blood-vessels.

Opiates only mock the patient with the appearance of relief, and, like brandy in the rôle of a dyspepsia cure, frequently result in an aggravation of the trouble. Laudanum paralyzes the digestive organs, and not only fails to reproduce the conditions of natural slumber, but goads the brain into fever-dreams, more permanently injurious than sleeplessness.

Anne Payson Call, in "Power Through Repose," speaking of "Rest and Sleep," says: "Realizing fully that sleep is meant for rest, that the only gain is rest, and that new power for use comes in consequence—how absurd it seems that we do not abandon ourselves completely to gaining all that nature would give us through sleep."

Sleep is quieting to the nerves, soothing to the brain, and nourishing to the body. Undeniable as this is, cannot the reader easily understand that sleep is helpful to the stammerer. The stammerer, generally speaking, is nervous, and owing to his continued fear of stammering becomes mentally fatigued. His thoughts course rapidly through his brain, even faster than he can physically produce them. Motive power, when generated,

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is oftentimes misdirected, and in consequence he ages quickly.

Canon Kingsley has said: "The stammerer's life is full of misery, and necessarily a short one by reason of the mental depression and misdirection of vital energy which is induced thereby."

Sleep cannot, by any means, effect a cure in any case of stammering. The point I wish to emphasize is this: that loss of sleep and irregular hours will aggravate and make worse any case of stammering.

I wish to add, also, that plenty of sleep, with regular hours, will, by quieting the nerves and resting the brain and body, make possible for successful treatment cases of stammering that might otherwise prove difficult to cure.

MORALITY

There is no doubt but that morality obtains a wide influence for good in the treatment and cure of stammering. We have heard much about the physical treatment of stammering, and yet, important as it is, there has been but little written about the moral treatment of this awful affliction. I do not assume that morality and purity in living can in any case effect a cure for stammering. My claim is that it makes favorable for successful treatment a condition which would otherwise prove unfavorable. Fortunately, I have known of very few stammerers immorally inclined. On the contrary, the affliction appears to exert a restraining influence over its victim, and in the same manner that it deprives him socially from the en-

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joyment of the pleasures of life it also holds him in check from falling into the pitfalls of ruin. There are without doubt exceptions to this, since I have known of one or two stammerers who were decidedly immoral characters. My experience, however, from contact with large numbers of persons afflicted with stammering, bears me out in reaffirming that the large majority of stammerers are of the moral type. There is good and bad in everything and everywhere, and oftentimes the latter element predominates, but fortunate as is the case among stammerers the majority of them are, if not strictly moral, morally inclined. This fact is largely in favor of the stammerer, so far as the possibility of a cure is concerned, because if the order of things in this respect were reversed it would in a measure lessen the chances for recovery. The morally inclined stammerer is generally more susceptible to treatment than the stammerer who is not morally inclined. With a mind full of corrupt thoughts, a mouth full of evil sayings, and a body full of languor or disease, we have many obstacles to surmount before entirely satisfactory results can be accomplished. On the other hand, a mind filled with goodness and virtue, a clear conscience, and a healthy body make successful treatment both probable and possible. The stammerer who would make for himself a condition most favorable for an absolute cure of his affliction should at once set about to live a life of chastity and purity. Let him engage his mind with wholesome literature, his body with healthful exercise, and let him choose his companions with as much care as he would choose a life partner. Companionship has more to do with moral living than we would suppose. Every im-

pression received is one either for good or evil, and thus one evil companion will readily overthrow the very thing you are trying to establish, while a companion of good morals will strengthen resolutions and build up character. To prepare yourself for the most favorable results for treatment cleanse your mind of every impure thought and keep it constantly cleansed and pure. Avoid obscene language, burlesque or other objectionable plays or theaters, the use of tobacco in every form ; also avoid the use of liquor, tea, coffee, and above all the poisonous cigarette. Avoid also all kinds of vice and the indulgence in any pleasure that exhausts the vitality. Take plenty of physical exercise, eat wholesome food, retire early, sleep on a good, comfortable bed, bathe often, and live well. If you will follow the plan I have here laid out, you will not only enhance the probability of a cure for your stammering, but you will also elevate yourself in your own estimation and in the estimation of all other men.

DIET

There is more benefit to be gained from diet restrictions than the stammerer would at first suppose. Many persons who stammer are equally as unable to control their appetite as their speech. Naturally of an active temperament and a nervous disposition they fall into the rut of doing everything quickly and without regularity. Probably one of the worst evils, aside from that of stammering, wrought by this practice or habit of doing things quickly, is that of rapid eating and overeating. It is also equally as harmful to the

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stammerer to eat food that is highly seasoned. He should avoid the use of spices or condiments in every form. Eat and drink nothing that contains more stimulus than nourishment. Eat nothing animal or vegetable that has not obtained maturity to reproduce itself under ordinary circumstances. Use neither tea nor coffee nor alcoholic liquors; avoid fatty substances and eat but little, if anything, that contains lard. Eat slowly and drink nothing while you have food in your mouth. Indeed, try to do everything moderately, and keep down all excitement of either body or mind. Cultivate a cheerful disposition and an agreeable state of mind. Cultivate none but agreeable feeling toward all. Be regular as possible in your habits, whether of eating, drinking, sleeping, or exercise, and do all things decently and in order. A derangement of the stomach means a derangement of the nervous system, which in turn aggravates your natural weaknesses. Nourish your body with wholesome food, and eat only such things as can be well digested. Indigestion is one of the aggravating evils of stammering. Apply the rules here laid down, and notice the improvement in your general health as well as in your talking.

STAMMERING

PRACTICALLY, THEORETICALLY

Lecture delivered before the members of the Detroit Academy of Medicine,
June 25, 1895.

MY experience from contact with the stammerer convinces me that the difficulty is scarcely, if ever, manifested in two persons in exactly the same manner. I have also learned that the conditions under which stammerers experience the greatest trouble are by no means the same.

There appears to be a wide difference of opinion regarding the definition and origin of this malady. It is not my intention, however, to enter into and discuss different authorities and criticise their definitions, but to outline as clearly as possible the cause of the stammerer's difficulty and practically demonstrate to you my mode of treatment.

I have frequently been asked the questions, "To what do you attribute stammering?" "What is the difference between stammering and stuttering?" To the public there would seem to be but little difference,

and even the close observer, unless thoroughly acquainted with the peculiarities of this affliction, might easily be led astray in his conclusions.

Without going into detail of explanation, I will say that stammering is principally manifested in the articulating organs. Stuttering, on the other hand, is largely confined to the organs of respiration and vocalization. We have often heard it said that persons who stammer in conversation can sing without difficulty. This is generally the case, but not always. I occasionally come in contact with persons who experience the same impediment in singing as in talking. Their efforts to articulate certain syllables in singing meet with the same hindrance as is manifested in their conversation. Such cases, however, are rare. All movements of the human body are brought about by the action of muscles that are attached to movable apparatuses and are made to operate through the medium of the nerves. Without the proper co-operation of the muscles, it is impossible to accomplish anything. Thoughts originate in the brain,—the brain acts upon the nerves,—the nerves act upon the muscles,—the muscles act upon the bones,—and only after this process are we able to undertake any act. If the process of action is one of harmony, the act will be successfully accomplished. If, however, after the origin of thought there is an inability to accomplish or perform any ordinary human action, the deficiency is due to a lack of co-ordination. This lack of co-ordination of action, when spoken of in connection with or as related to the production of words, is the source from which originates or develops all forms of

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abnormal speech. The humiliation of stammering, the desire to speak fluently, and the fear that he may not be able to do so, keeps the stammerer in a state of constant mental emotion. It is owing to this condition of continued fear that we have associated with stammering so much nervousness.

With the aid of a number of my pupils who are present with us this evening I will endeavor to practically demonstrate to you, as far as possible, my mode of treatment.*

My manner of dealing with the stammerer is probably different to any that has heretofore been introduced, my own experience as a sufferer having given me a keener knowledge of the stammerer's nature than I could possibly otherwise have gained.

The first pupil I will introduce to you this evening appeared before you at your last regular meeting, and, as you remember, was utterly unable to read or speak three connected words. He applied to me personally for treatment, and was obliged to indicate by signs and by writing his wishes. The contortions of his face, you will remember, were most painful. He will address you to-night, and I want you to note carefully his complete change.

I will also introduce to you a pupil who has been under my treatment but three weeks, who stammered continually for many years, and who will tell you in a fluent and conversant manner of his remarkable cure.

*A number of pupils under treatment expressed their desire to attend this lecture and asked permission to submit themselves for examination to the members of the Detroit Academy of Medicine as evidence of the thoroughness of the treatment they had undergone.

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I have also with me a pupil who has been under other treatments at several different periods during his life, from which he says he received no perceptible benefit, and who will, I am sure, be pleased to relate to you some of his former experiences. You may talk to these gentlemen and to my other pupils with me this evening, and I do not believe any of them will stammer, notwithstanding they are all here in Detroit for treatment, some of them having come long distances to attend my Institute.

Before asking the gentlemen to address you I will endeavor to demonstrate (as far as the time allotted for this lecture will allow) the mode of treatment I follow in my school from day to day, and from which we have been able to obtain the results you see manifested here before you.

I can, of course, give you but an idea of the work that is carried on daily in my Institution, owing to the fact that I am obliged to demonstrate within an hour's time what usually requires from three to eight weeks to accomplish.*

From four to five hours each day we exercise our pupils after this manner. Vocal and physical exercises are also introduced, and generally by a series of exercises founded on an educational basis, of disciplining the pupil to do exactly as he is told, he gradually gains perfect confidence and freedom of speech.

*A half hour was, at this point of the lecture, devoted to the practical demonstration of the Lewis Phono-Metric Method of treatment, used largely in effecting a cure.

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At first the instruction to the pupil is usually private, and after he has made sufficient progress to warrant it he is obliged to perform before a portion of the class what he has already done in my presence. If he can do this successfully, other pupils are introduced, and he is placed under the most embarrassing conditions, made to read, to converse, to deliver impromptu speeches, is cross-questioned, and the most severe tests applied. If with perfect confidence he proves himself capable to fully stand these tests, he is then permitted for a few days to talk at leisure to myself or to the other pupils, asking any questions he desires or he may enter into general conversation. If, after this time, we find that he does not stammer, he is permitted to join our question-asking expedition and is allowed to talk to any one or every one—the more the better.

It is impossible to tell definitely when he enters the length of time any pupil will require for treatment. It largely depends upon his application to his work and his aptitude and comprehension.

The average person, however, has been obliged to remain from three to six weeks.

Author's Note: The reader must not infer from the above that pupils attending our Institute are in any manner asked to submit themselves to criticism either in a public way or otherwise. On the contrary, we are extremely careful to maintain the utmost privacy for those who place themselves under our treatment and care. We never mention the names of our pupils without permission, and, when desired, the strictest confidence and secrecy of correspondence or attendance is preserved. As already stated, the gentlemen who attended this lecture expressed their desire to be present, knowing that they would be called upon to address the members of the society. Notwithstanding this caution they decided to attend in a body and were highly complimented on all sides for the success of their undertaking.

CAUSE AND CURE
OF
SPEECH DEFECTS
AND THE CONDITIONS THAT RENDER STAMMERING
CURABLE

A paper read before the Convention of the National Association of Elocutionists of America, held at Detroit, Mich., 1896, June 24 to July 3.

I KNOW of no other subject demanding the same consideration and attention upon which so little has been written and said as the affliction of stammering. It has occurred to me that more has been accomplished for the advancement of the study of elocution during the past five years than for the cause of the stammerer during the whole of the bygone century. While relief for almost every other known infirmity has been carefully sought after, the cause of the stammerer has been sadly neglected.

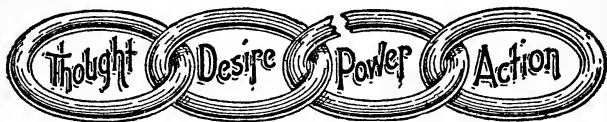
Schools for the deaf and dumb, institutes for the blind, homes for sick and friendless children, homes for the aged and infirm, asylums for the insane and incurable, and many other such public institutions mark the charitable spirit of our country, while the affliction of stammering receives only a passing recognition.

My own experience, having myself stammered for more than twenty years, together with a careful study of the subject and contact with a great number of persons who stammer, convinces me that a great majority of persons who are thus afflicted are themselves as ignorant of the real nature of their malady as are the persons with whom they come in contact. They know they stammer, but further than this, concerning the cause and necessary means of correction of the evil, the great majority of them know absolutely nothing.

Before much can be accomplished along the line of advancing the cause of the stammerer, some radical changes will require to be effected. The stammerer will require to be educated to an appreciation of the necessary means of correction of his difficulty and the public in general enlightened regarding his neglected condition. I feel it unnecessary to speak in condemnation of the crude surgical practices for the relief of stammering resorted to during the early part of the present century. Those present who know the history of the art and science of treating stammering are aware of the awful results of which I speak. I shall not attempt to give you a history of these blunders. They were too many in number, would fill too many volumes, and would require too much time to here explain. They covered a period dating from the early history of Europe down to 1870, during which time the poor stammerer was butchered and tricked in every imaginable way.

By those who have given serious thought and study to the subject, it is conceded that stammering is of mental origin. With persons who stammer there seems to

exist in the portion of the brain which governs and controls the motions requisite for the production of speech a difference of brain fibre from that of the ordinary individual. The difference does not appear as one of structure, but of sensibility. This idiosyncrasy exposes the brain of the stammerer to be most easily disarranged and the organs co-operating thrown into spasmodic action by the ordinary mental desire to speak. In other words, there seems to be a lack of co-ordination and of harmonious action between thought and its transmission and conversion into articulate speech. Thoughts of the brain arising either from immediate sensation or otherwise are carried along through a succession of channels before they can be audibly expressed. Few of us, unless we have given careful study to the subject, know just what this process of transmission consists of. To better illustrate, let us imagine the transmission of thought from the brain and its conversion to expressed words and ideas a chain consisting of several links. The first



link represents the systematic arrangement for production of thoughts and ideas that originate in the brain through our immediate sensations, or which take their origin in an abstract manner.

The second link represents a determination or desire of the will to give expression to thought.

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The third link represents a generating influence of the will that moves to action any portion of the body. For the purpose of illustration I have designated this influence "Motive Power."

The fourth link represents the action of articulate speech.

We have before us in the four links of this chain the process of transmission of thought to its conversion into audible expression, and a complete analysis of speech, which, I trust, will better enable us to discover the stammerer's defect.

It will now require an investigation and examination on our part of the different links which make up this chain to find the point at which the functions concerned cease to harmonize. As long as the process of transmission is harmonious the results will be most satisfactory. It is only when the organs concerned in the production of speech do not act in harmony that we hesitate or stammer.

Let us turn our attention to the first link of the chain before us. Is the elaboration of thought and its arrangement for production in the brain of the stammerer un-systematic? Do we find this to be true? If true, the stammerer, intellectually speaking, would not only be weak-minded, but would also be lacking of intelligence. The fact that many of the brightest men the world has known have stammered would appear as evidence against such a conclusion, and I think any further argument on this point is unnecessary. I think it is generally admitted that the stammerer is not weak of intellect, but on the contrary, many persons who stammer are superior

in this respect to some persons who are gifted with perfect fluency.

From an examination of the second link it would appear that there can be nothing lacking in the desire of the stammerer to express himself. If so, the defect must amount to either an excessive or deficient energy, resulting in an inability to give physical action to internal thought. If the difficulty of stammering were due to a defect at this point, we would find that, as well as the organs of speech, other organs of the body would fail to respond to our desire.

Again, let us consider the case of the infant. Take, for illustration, the child who has inherited the original defect of the stammerer. It, as well as the adult, can only make known its wants by means of physical action, and if the defect of stammering were due to an excessive or deficient mental desire, we would find this child, before speech was complete, would be not only wholly unable to express itself, but would betray all the symptoms of the stammerer. It has been found, however, that such children do not betray their malady until a more complex action is required of them than the mere act of desiring. This, to me, is conclusive evidence that the difficulty of stammering is not attributable to any deficiency at the point under consideration.

Before examining the third link of our chain let us proceed to consider the fourth. I believe stammering to be of more obscure origin than is generally believed. True, the outward manifestations to the observer are wholly confined to the organs of speech and, at first thought, it would appear that the cause of the difficulty

might be attributable to wrongly formed speaking organs. If stammering were due to an organic defect of the organs of speech we would find persons who are thus afflicted would always have exactly the same difficulty on the same words and under the same conditions. We find, on the contrary, however, that persons who stammer are at times able to converse in a perfectly fluent manner without the least hesitation, while at other times they are unable to speak three connected words or to raise their voices to make an audible whisper. I am willing to admit that persons who stammer are as liable to organic defect of the organs of speech as are persons who are not afflicted, but do not believe that the percentage of persons who suffer from organic defect of the speaking organs is any larger among stammerers than among other persons not addicted to stammering. Furthermore, I have never found, in a single case of stammering, the least defect in the organs of articulation. I therefore conclude that the action of speech itself is, with the stammerer, perfect and complete.

We have now examined all but the third link of our chain, and having found nothing to indicate the origin of the stammerer's difficulty, let us proceed to examine the third. This link joins mental desire with physical action and would appear as the point where the current of thought is connected with the movable apparatus of articulate speech. Up to this point the process of transmission is but mental. Here the current of thought is connected with the dynamo of human mechanism, and like a flash mental desire is transmitted and transformed

into moving, living action. This point of contact may be the source of all forms of abnormal speech. The mental energy of the will fails to generate to action the required stimulus of mind and body necessary to the proper co-ordination and harmony of the functions concerned in the proper production of perfect speech. The lack of harmony thereby occasioned results in stammering and, as previously stated, the point of contact would appear as the real source and origin of the stammerer's difficulty.

The unsuccessful efforts of many who have endeavored to treat the stammerer I attribute to unfavorable conditions. With favorable conditions and proper treatment any case of stammering, no matter how severe, can be successfully treated.

Let us consider for a moment the conditions favorable to a perfect cure :

First, any treatment, to successfully overcome stammering, will require to establish a foundation upon which to build.

Second, this foundation can be explained as the basis from which the child, during earliest infancy, evolves the proper manner of talking. To establish such a foundation means a return to the fundamental principles of breath and tone production, with a well-directed force of will against the mental influences of stammering and the unnatural conditions that have arisen.

The third condition to a successful treatment will require an instructor who, from a personal experience of stammering, can appreciate the feelings of the stam-

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merer and know the trend of the mental influences that act in discord. Such a person with a well-directed force of will power constantly exerted in the right direction can successfully direct the stammerer to a proper deliberation of action.

The fourth condition to a successful treatment will require for the stammerer a home life surrounded with moral and persuasive influences, directly under the care and watchfulness of his instructor, where, from day to day during treatment, the necessary care can be easily exerted.

The sixth condition to a favorable treatment will require that the stammerer may be surrounded with a number of others who are similarly afflicted, that he may constantly be reminded by them of the grave importance of careful attention to training.

The seventh condition to a successful treatment is proper food and nourishment for the stammerer. His changes of diet, hour for retiring, and habit of stimulants will require to be carefully restricted.

These conditions earnestly sought after and strictly adhered to will make favorable for successful treatment the most severe cases of stammering you can possibly imagine.

INSTITUTIONAL AND HOME TREATMENT

THERE are many diversities of opinion as to what constitutes a good treatment for the cure of stammering. To me a good treatment for the cure of stammering means much. To others it may mean the same, but their way of looking at the matter and my judgment of the affair may be entirely different. Thus I will endeavor to make plain my views and will tell what practical experience has taught me to be, from all points considered, a good method of cure.

Feeling that the influence of both the institute and the home are necessary in accomplishing the cure, I shall endeavor to point out to my reader a place for both, and throughout my discussion will try and make clear my ideas of the merits of each. The fact that I can count on the fingers of one hand but few institutes for the cure of stammering (within the last quarter of a century) that have proved successful, is evidence that there is a lack in management somewhere. I know of more than a score that have started apparently under the most favorable circumstances and have subsequently fallen by the wayside. Who is responsible for this? Was it a lack on the part of the instructor in his ability to effect the cure, or

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was failure due to lack of business management? In the majority of cases both causes were responsible for failure. The first requisite necessary in successfully conducting an institution for the cure of stammering is an ability to effect the cure. I am satisfied also that no person excepting one who has himself tasted of this cup of galling bitterness is in a position to understand the feelings and condition of the stammerer. The circumstance that a person can cure a single case of stammering, or in fact that he can cure a number of cases, is no evidence that he could conduct successfully an institution where large numbers of persons thus afflicted are expected to congregate for the purpose of obtaining relief. To successfully conduct an institution of this kind it requires something more than an ability to cure, which is, however, as I have already said, an important element to success, in fact, the most important. Institutions must be conducted on a large scale to insure success. A small mercantile business will sometimes pay better returns for the money invested than larger concerns of a like nature, but a small institution for the cure of stammering run in a small way is nothing. Everything in and about a stammering school must have attention to insure good results.

In the first place the system used to effect the cure is important. Whatever the system may be it must be complete. It requires on the part of the teacher a knowledge of all systems, without which and without the skill of an adept in applying them the results looked for may prove disappointing. Surprising as it may appear to one unacquainted with this study, more depends

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upon the thoroughness in applying certain principles than in the methods themselves. To know a thing and to do it are two entirely different things, and thus it requires not only familiarity with certain rules, but also that these rules and principles must be properly applied and carried out.

There must be method in everything. Even as a large department store, such as Wanamaker's of Philadelphia, or the Siegel Cooper Co. of Chicago, could not succeed without method, neither can an institution for the cure of stammering. The business methods of an institution of this kind are as important to its success as its methods of cure. Correspondence should be well cared for. Letters carefully filed away; answers as carefully copied, and all correspondence kept as confidential as a sacred trust. A proper office system throughout should be maintained. A separate advertising department established, where all literature, pamphlets, circulars, and magazine advertising is properly taken care of. Bills due should be paid at once, in order to insure the financial rating or standing of the institution. Receipts should be made out and given to all persons paying money into the institution, however large or small, and the utmost economy practiced at all times.

One reason, I think, that so many institutions for the cure of stammering have failed is, because of their many broken and unfulfilled promises. They picture things in an untrue light and gild their phrases with the warmest coloring. This is a great mistake. We see the same principles carried out in every-day life. Every daily paper we read is filled with untruths. The advertise-

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ments of the majority of stores, many of them considered reliable, are full of untruths. "Bankrupt Sales," "Going Out of Business," "One Dollar a Yard Goods for Fifty Cents," "Dissolution of Partnership Sales," and what not—all to deceive the public. Why not the truth? Isn't it better in the end? Of course, and so it would have been better for many of those institutions, now obliterated and dead, had they not made so many promises which they knew they nor anybody else could not fulfill.

In looking after their own pecuniary interests many of those institutions that have failed entirely lost sight of the pupils' welfare. Their object appeared to be to get all the money they could and give as little work for it in return as possible. The pupils' interest should be considered first, in which way is the only way of serving the best interests of the institution. The fact of the matter is, the pupil makes the institution, and without that support which he gives, no institution can exist without loss. Here is a critical point, however, as the teacher may (overambitious to serve his pupil and at the same time himself) indulge his pupil in liberties which he should not have, with the fear that his order to desist will mean a separation of friendship. I know of but one way to overcome this obstacle. Teach the pupil to know that duty comes first. That all other issues to his cure are secondary and that you prefer his ill will and respect rather than his good will without it. Obedience is the first law of order and should be made infallible, as a principle, with pupils in their duty to the instructor.

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Let the teacher establish a fixed rule in dealing with pupils and never deviate from a principle which experience has taught him is best. Accept suggestions, but do not accept dictation from any pupil as to the treatment best adapted for his particular case. He comes not to instruct, but to learn; not as a teacher, but as a pupil, and as such should be taught to obey. Let the teacher ask kindly that his instructions shall be fulfilled, and carry himself with such dignity as will maintain the respect and confidence of his pupils. If the pupil openly disobeys, let the teacher demand obedience, and if necessary exact it. The majority of pupils, however, are ever ready to obey, as in obedience to instructions is embodied the elements of the cure.

In considering the requisites of the institution, it can be authoritatively stated that the influences of the home life are absolutely necessary to the best interests of both teacher and pupil. In fact, I consider that at least 25 per cent. of the value of treatment in effecting the cure is in some instances due entirely to the influences for good which all pupils under treatment for stammering should have cast around them. The carefully guarded moral life of the ideal home should be made a permanent fixture of the institution.

In the conduct of institutions for the cure of stammering this important feature has not been taken into consideration, and for this reason, if from no other, such schools have been short lived. To insure success the management of the institution should provide for its pupils a home equipped with all modern conveniences, customary to modern ways of living. Not only

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in this respect should the home be provided for, as many a house equipped in the matter of modern conveniences is anything but a home. In speaking of the home, I refer more particularly to the influences and surroundings rather than to equipment and furnishing, which, however, are important if not indispensable.

Everything in and about the home in connection with an institution for the cure of stammering should be kept scrupulously clean, neat, and cheerful. Reading rooms as well as a library should be provided for pupils, with plenty of wholesome literature. All the popular magazines of the day, such as the Century, Harper's, Scribner's, Munsey's, the Ladies' Home Journal, the Youth's Companion and several dozen other papers of this class, as well as religious papers of high character, should be placed at the disposal of the pupils of the institute.

The establishment of a home of this character, however, in connection with an institution for the cure of stammering is not as easy a matter as it would appear. It costs thousands of dollars, but it means much to the stammerer, as it adds considerably to the value of his treatment.

Parlors should be provided with pianos, as well as comfortable sitting chairs for retirement and ease, and every pupil of the institution, no matter what his former sphere of life has been, should be made to feel perfectly welcome to every portion of the home. Deportment and gentlemanly conduct should be made the only obligation in return for these many advantages, and with a carefully guarded life on the part of those who

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have charge of the home, the highest degree of success may be expected.

While the institution owes the pupil a duty almost equal to an avowed obligation, the pupil in return owes the institution a duty equally as important. It is the part of the teacher to instruct, to encourage, to enthuse, and, if necessary, to exact or demand. It is the part of the pupil to obey, and not only to obey, but to do more than obey—to exert himself in his own behalf.

There are many kinds of salaried employees—of which two distinct classes have always been apparent to the writer. That class of persons who work only for their own interests and do exactly what is expected of them for a fixed sum per day or per week. That class who in trying to serve their own interests try to serve also their employer's interest, and who show by their efforts that they are doing more than is expected of them. The former class always work for a fixed salary, which is never advanced. They are paid for exactly what they do, and they do exactly what they are paid for.

The latter class generally find their way to the top, as the employer realizing the fact that they are doing more work than they are being paid for, will, if just, advance them accordingly.

This same idea appears to prevail among persons under treatment for stammering. Some pupils work only to serve their own interests. They obey, but create no originality. They do exactly the amount of work demanded, but nothing more.

The other class is that of pupils who work not only for their own interests, but also for the interests of their

fellow sufferers. They make an effort of their own. They put forth a determination into their work that generates a like determination in others. They create an originality and do many things not absolutely required of them, but which serve to advance them in their work. In this they are wise, as it is only in serving the best interest of the institution and of his fellow sufferer that the stammerer will succeed in serving best his own interest.

There is another class, and a most important one to the institution, as no institution can long succeed if hampered by its influence. This class is one of persons who are disinterested in their own cure. They come into the institution because their parents or friends want them cured. They feel no humiliation over their infirmity. They boast that it is their own business if they stammer, and say if other persons do not like their style of talking they do not have to. Such persons should be barred from treatment, as their presence is always harmful to others, and, besides, effort to cure them generally results in failure. They are as indifferent to treatment as they are to the opinions of those whom they torment with their stammering.

To succeed in its efforts, the institution should endeavor to instill into the life of every patient a determination to succeed. No such word as "failure" should be permitted. Stammerers who come into the institute, not knowing the importance that attaches to willingness to obey, and personal effort on the part of the pupil should be taught the importance of these factors at the beginning.

Those who put forth effort of their own and obey to the letter should be encouraged to the utmost, while those who are disinterested in their cure should not be permitted to enter.

Rigid discipline in treatment, with attention to detail by the pupil in following out instructions, together with carefulness on the part of the management in watching the progress of its pupils, will, if the above suggestions are carefully observed, add largely to the success of any institution for the cure of stammering.

The advantages of the home life in connection with the institution are shown in the benefit derived by pupils through association. In a school of this kind the co-operation of the pupil with the teacher is absolutely essential. He should be taught also to manifest an interest in others. In this way the subject becomes interesting to him. He soon learns to regard the cure as a study, and it is oftentimes surprising with what earnestness he will apply himself to solve the problem.

Mr. A becomes interested in the phenomenon of Mr. B's case, while Mr. B is equally interested in studying the peculiarities of Mr. A's case, and so on throughout an entire class of ninety to a hundred pupils. Has the reader ever stopped to think what it means to have this many stammerers all collected together under one roof; all living together, eating together, and working together? It means a great work, I can assure you; but when these ninety to a hundred persons are constantly changing places, new ones coming and old ones going, it means in the course of a year many hundred patients. That all these persons should learn to co-operate with

the teacher is one of the important elements to success ; but that they should also be brought into association, one with the other for each other's benefit, that they should in fact each strive to help the other, is a still greater element to success, and one of the most important elements of the cure. In this way, in addition to the regular teaching staff of the school, every pupil has constantly from ninety to a hundred instructors, all interested in his cure and anxious to have him succeed.

Another advantage to be derived from the home life in the institution is that of making the pupil feel satisfied and cheerful. Naturally sensitive over his affliction, he does not care to associate with persons who have no sympathy for him. He does not ask for sympathy, yet dislikes ridicule. Thus by bringing him into the home where he is constantly in association with others who are similarly afflicted, he is not exposed to the heartlessness of unkind persons, which he might otherwise fall in with.

There should be system in the home life of the school as well as in the method of instruction. In this the advantages of a home for the pupil are without question of great value. He can be most carefully watched, and is at all times directly under the observation of the faculty. His hour of retirement, his daily exercise, his diet, as well as his other habits, can all be carefully regulated. In this respect, if in no other, the advantages of the home are without question of more than real value to the pupil under treatment.

In a word, the home provided for the pupil is as important in accomplishing the cure as is the method of

instruction. The latter should be thorough, while the former should be adapted especially for comfort, convenience, and accommodation. It should contribute to make the life of the stammerer a cheerful one; it should surround him with wholesome and moral influences; it should in fact be a Christian home in every sense of the word, and thus, while aiding in accomplishing the cure, it will also serve a two-fold purpose, that of adding to the life and character of the pupil.

When you have made up your mind to enter an institution for the cure of stammering, go in with all confidence in your instructor, belief in the cure, and a firm determination to win. I make this suggestion for two reasons: I have observed that the degree of success with which the pupil meets is always in direct ratio to his belief. I have also observed that pupils without confidence in their instructor lack also confidence in their cure. Fortunately, I have had but few cases of this latter kind to contend with, as the majority of persons suffering from stammering with whom I have come in personal contact were firm believers in the cure. However, I have occasionally met one who, owing either to former failure or to general skepticism, disbelieved in any method of cure, but who for the sake of experiment was willing to go in on a speculative basis. This is poor policy, and sometimes proves an expensive experiment in the end. It costs the same for treatment whether you believe or disbelieve, whether you have confidence in your instructor or whether you lack confidence in him, and the results are always more gratifying to those who believe. It is the hardest work in the world for a physi-

cian to raise from a sick bed a patient who believes he is going to die. It is equally hard for the teacher to cure his pupil of stammering unless the pupil places confidence in the instruction. This class of disbelievers is detrimental to the best interests of both the institution and its pupils, and often dampens the ardor of a whole school. Many of these persons who are thus skeptical, when brought into contact with the work of a well-conducted institution, lose their disbelief and become warm supporters of the methods employed. Their cure makes them so, for how could they be otherwise when they have actually become partakers in the enjoyment of that for which they have so long searched?

There is much truth in the statement that stammering is a lack of confidence. I believe it is, and also that many persons stammer in their every-day actions without ever speaking a word. Stammering has sometimes presented itself to me in these words: "I don't know whether I can or not; I don't believe I can."

The majority of my readers are persons who stammer. Have you ever felt that sensation of doubt? Is not your first impression an impression of doubt, when approaching a word difficult of utterance? Is not the second impression one of disbelief? You say "yes." What is the result? Your answer is, "failure." Thus many persons stammer without even uttering a word. They doubt their own ability to perform certain acts. "They don't know whether they can or not; they don't believe they can." They halt, hesitate, stumble, in fact, they stammer, and even though it be by act alone, without the sound of vocal utterance, neverthe-

less it is characteristic of stammering, which in truth it really is. When, therefore, it is shown that stammering is in form only a "lack of confidence," is it not a reasonable argument that the degree of success under treatment is always in ratio to the confidence of the pupil? Is not confidence that element which we are trying to establish? How, then, can we establish a cure unless we can establish a confidence? The fact of the matter is, the cure consists largely of confidence, even as the defect is largely a lack of confidence. Take my advice, then: when you enter an institution have confidence in the instruction. Do not go in on the belief that every man is a rogue until you prove him honest, but in considering your cure believe in your treatment that every man is honest until you prove him a rogue. This latter I confess is not a good policy to pursue in all things, but when the matter of establishing a cure for stammering is thus dependent upon the establishing of confidence, it is well to believe from the beginning. I refer in this matter entirely to the pupil's conduct and belief after arriving at the institution. Before entering such an institution, "make sure you are right and then go ahead." By this I mean take every precaution to thoroughly investigate its merits. If it bears favorable investigation and you are willing to "make the experiment," cast aside any disbelief which you may have previously entertained and abandon every doubt before enrolling yourself as a pupil. Stake everything in belief and have confidence in your cure to the uttermost degree. This will insure a cure in any case of stammering, it matters not how severe the

case may be, providing the pupil is willing to obey instructions. Much of course depends upon the instruction. I refer only to such instruction as one would expect to find in any well-conducted and well-regulated institution for the cure of stammering.

The time was when such institutions did not exist, but with the advancement of science new ideas have been developed along this line, from which have evolved practical methods for the cure of stammering.

To enumerate the many different methods that have been practiced for the cure of stammering within the past century, giving a description of each, would fill an entire book, and could prove of little benefit, if any, to the reader. In truth, I believe it would prove harmful, as much time at earlier periods was uselessly spent in vain efforts to obtain radical results. Only within the past few years have practical methods of cure been in use—the result of modern thought, investigation, and invention. In fact, as recently as 1852, methods of surgery were largely practiced for the cure of stammering, and with harmful results, as is shown by the following extract, taken from “Stammering: Its Effects, Causes, and Remedies,” by C. P. Bronson, M. D. Dr. Bronson was considered in his time an authority of unquestionable reputation, and concerning surgery as a remedy for stammering says:

“I am also aware that some persons contend that stammering is caused by malformation of the vocal organs, which either produce or modify sound. But this opinion is incorrect, as is evident from the fact that it is caused by a disease which induces this impediment of

speech. In consequence of this false notion, some grave professors of medicine and eminent surgeons have undertaken to cure stammering by operations, a few of which I witnessed some years ago in the medical department of the New York University. Being personally interested in the subject, I took much pains to see individuals who had been operated upon as they came out of that college. I inquired of them whether they were cured. Their words and actions invariably replied in the negative. The operation I would observe," continues Dr. Bronson, "was merely piercing the tongue transversely or cornerwise from about one-fourth of its corner side to-its right upper side." "In the name of common sense," says the Doctor, "what has such an operation on a modifier of sounds to do with the organs that produce the sound?"

Many such nonsensical ideas prevailed among early investigators, the results of which served only to dishearten the stammerer. Several deaths were reported from hemorrhage. Stammerers were mutilated and cut to pieces in every imaginable way. Tongues were cut, tonsils removed, needles were inserted into and passed through the base of the tongue, sharp-pointed instruments forced into the vocal cavities, gargles of various kinds used to allay the irritation, and powders administered to the patient with the hope of benefiting him.

One writer says: "My attention was called to an advertisement which proposed to cure stammering in various ways. One man advertised to cure by a surgical operation, which he said could be performed in the twinkling of an eye, and the stammerer was forever

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cured. I called on the performer (who dubbed himself Doctor), but without the least faith imaginable. In the center of his office stood a round table, on which was spread in beautiful confusion a quantity of surgical instruments such as dentists use. I made some inquiries as to his mode of operation, price, etc., but with what little knowledge I then possessed of the structure of the human system I was confident that his apparatus was all a humbug, and not willing to be 'fleece'd' for the ninety-ninth time, I retired with his angry words ringing in my ears."

Such was the condition of things up until as late a period as 1850. Earlier than that time matters were even much worse, as is shown by the unbalanced theories of authors who unhesitatingly put their views into print.

As already mentioned, it could only serve as productive of evil that I should discuss further or enlarge upon their worthless methods, nearly all of which have since been abandoned. Better that I should tell my reader what I consider to-day the best means of treatment, and bury these old, worn-out, and threadbare ideas in the grave of the past, where they so fittingly belong.

The use of a surgeon's knife to effect a cure is not required in one case of stammering in a thousand. Only where malformation of the organs appear is it necessary to perform a surgical operation, and of such cases during my entire acquaintance with stammerers I have known only one. This single case was a complicated one in many respects, and it may be a relief to add that stam-

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mering was not due even in this instance to the malformation. It was necessary, however, in order to correct the articulation of the sufferer that an operation should be performed. As a matter of fact, his stammering habit was entirely cured before the operation was commenced, thus conclusively showing that there was no relation between his stammering and the abnormality of his tongue. It simply happened that in addition to stammering he had unfortunately been born with a peculiarity which is sometimes manifest in persons not addicted to stammering. Had he never stammered the operation would have been necessary just the same, in order to establish perfect articulation. Malformation of the speaking organs among stammerers is very rare, and not at all more common than among persons not thus afflicted.

Among letters received from many thousands of persons addicted to stammering, and from my personal acquaintance with a great number, I have recollection of but few instances where any defect other than that of stammering was manifested in the patient. As has been demonstrated again and again, surgery can only prove harmful where it is not necessary, and I know of no better illustration of the truth of this statement than in cases of stammering. The less the stammerer has to do with the knife of the surgeon the better for him in nine hundred and ninety-nine cases out of every thousand.

I have always maintained and still believe that medicine is sometimes necessary in cases of stammering, even as I believe its use is necessary by many persons who do not stammer. I will go further than this, and say that it

is particularly beneficial as an auxiliary in some peculiar cases of the intermittent class, where the physical condition of the sufferer has much to do with his ease in talking. Stammerers who suffer from exhausted vitality or who have weakened energy, in applying themselves may oftentimes profit by the advice and attention of a good family physician. Any reputable doctor will tell you, however, that the less medicine you take the better for you. A judicious amount of exercise, plenty of sleep and rest, and good, wholesome diet are in the majority of instances much better than medicine. Often a mild tonic is necessary or even a physic to arouse the liver; but other than this, unless there is some chronic ailment, leave medicine alone.

All good methods for the cure of stammering should have incorporated into their regimen a graded system of physical exercises. Graded, for the reason that what might prove beneficial to one patient would be harmful for another. From the fact that mental energy and will-power, upon which good talking largely depends, are largely induced and augmented by judicious exercise, one who stammers should take every opportunity that presents itself to put himself in the "pink" of condition physically.

That physical exercise is beneficial in the treatment of stammering no recognized authority disputes, exercises to develop the torso, and for the development of the muscles of the neck, being especially productive of good. Physical exercise in a general way, such as one will receive in the ordinary first-class gymnasium where the regimen is directed by a well-informed instructor must

also serve to lessen the severity of the stammerer's difficulty. The reason for this is not at first apparent, but when one stops to consider that such exercises serve to subjugate the muscles to the power and influence of the mind the object is readily made clear. Who will say that by disciplining the muscles of the body to obey the commands of the will we have not gained the first step in harmonizing this inharmonious action? I have always maintained that breathing exercises for the development of the organs of respiration were highly beneficial to the stammerer as a means in overcoming his impediment, but have never advocated their use wholly as a means of physical development. My purpose in using breathing exercises is not wholly because they strengthen the organs of respiration, nor because they serve to increase the capacity of the lungs. Stammering is not due to incorrect breathing habits, which latter are generally the result of stammering. Neither is stammering due to an undercapacity of the lungs.

Why, then, use breathing exercises in overcoming the defect? My answer is, "for the same reason that I would use physical exercises, for the same reason that I would use vocal exercises." Physical exercises are well adapted to improve the general health and physique of the sufferer; breathing exercises are beneficial to aid in this physical development, and vocal exercises serve to mellow and strengthen the voice, which is good even to persons not afflicted with stammering. These exercises, however, as used in connection with a treatment for the cure of stammering should, while intended as an

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auxiliary to the general health of the sufferer, be given for the purpose of mental discipline.

I will endeavor to make myself clear in this statement by saying that the defect of the stammerer is in the mind,* not in a weakened voice, not in general physical weakness nor in incorrect habits of breathing. These latter are all the results of stammering and are generally associated with the defect, and often serve to aggravate it, but should never be attributed as a cause.

Stammering is manifested in a lack of ready and harmonious response of the muscles of the body to the commands of the will. It is therefore by making the muscles obey the will that we principally succeed in overcoming the defect. To do this we must give the mind absolute control over every muscle of the body, and whether it be a muscle concerned in the production of speech or not it must be disciplined to obey. If we would control the unruly muscles we must obtain a more ready response from each and every one. We must be able to control them separately, in pairs, and together. Desire must become a command, and command, law.

To accomplish this we must summon to our aid every exercise where mind and muscle may act one upon the other, and by means of a process of educational training we strengthen both, teach the latter to act in conformity with the commands of the former harmoniously and with precision.

As an illustration let us for example execute costal breathing. We place the flat portion of the hands upon

* See footnote page 27.

the sides just beneath the arm pits, and by inhaling through the nostrils we inflate the lungs in such a manner as to extend the muscles of the sides while the body assumes a flattened position from front to back. In performing this exercise we direct the mind to action and by exercising the will and centralizing it for a few moments we force into quick and ready obedience those muscles which, as the result of stammering, oftentimes refuse at first to obey. Other forms of breathing are similarly executed, until finally the mind becomes all powerful in command. Physical exercises serve much the same purpose. The gymnast will tell you physical exercises, if practiced regularly, give the mind control of the body. This is seen in the great muscular feats performed by such men as Sandow, who by the command of his will alone could knot every cord and muscle of his body. Many can move the muscles of their scalp without a perceptible movement from any other portion of their entire body. The same is true of the muscles of their chest, back, legs, and arms, over all of which they have absolute control either individually or collectively. And all this control is but the result of continually practiced mental disciplinary exercise, the organs of the body being disciplined and educated to obey the dictates of the mind. The same theory that applies to breathing and physical exercises is also true in vocal exercise. Much as has been said by others about the advantages of breathing, vocal and physical exercises for the treatment of stammering, I have never heard it advocated nor have I ever read that they were intended for any other purpose than for the mere object of simple corrections in incorrect

breathing habits, for the development of the voice or for strengthening a weakened organism. I have always been aware they served for all these purposes and that they are highly beneficial, but their better purpose has never been outlined to me. It has come to me through real experience in the treatment of hundreds of cases, that the object of such exercises as I have mentioned when used in connection with methods for the cure of stammering is for a better purpose than is generally believed — that of disciplining the muscles of the body to obey the commands and dictates of the mind.

THE MECHANISM OF SPEECH *

IT HAS been said that stammering is caused by a want of due control of the mind over the vocal organs, and as the brain is the seat of the mind let us consider its physiological construction and functions.

The brain is divided into two parts, the cerebrum and the cerebellum. The cerebrum fills the front and upper part of the skull and comprises about seven-eighths of the entire weight of the brain. In appearance it resembles an English walnut. It is divided into two parts, the same as the meat of a walnut or hickory nut, and like them is curiously wrinkled and folded with convolutions. The greater the number and deepness of the convolutions the greater the mental power.

The cerebellum lies below the cerebrum and is in the back part of the head. Its structure is similar to that of the brain proper, but instead of convolutions it has parallel ridges, which give it a peculiar appearance, called the *arborvitæ* or tree of life.

The cerebrum is the seat of the mind. It is the function which the cerebrum performs that distinguishes man from all other animals and it is through the action of the cerebrum that he becomes a conscious, intelligent,

* Extract from the PHONO-METER, a monthly paper exclusively for persons who stammer; edited and published by Geo. Andrew Lewis.—See last page.

and responsible being. The cerebrum is the center of thought. Persons in whom it is seriously injured often become unable to converse intelligently, both from inability to remember words and from loss of power to articulate them.

The cerebellum, lying between the base of the cerebrum and the upper part of the spinal cord or an expansion of the cord called the medulla oblongata, is the center for the control of the voluntary muscles.

There are two kinds of muscles, the voluntary and the involuntary. The voluntary muscles are those controlled by the will. If we see a dime, the mind sends a message over the motory nerve to the controlling muscles of the arm and fingers to act, to get into motion, to pick it up, and the muscles having always been accustomed to do the mind's bidding without any doubting, work harmoniously. Therefore the muscles of the arm and fingers and all such muscles are voluntary because they are controlled by the will. Without any message from the mind, our hearts beat day in and day out, year in and year out. This throbbing of the heart is beyond the control of the will and hence the heart is the best example of an involuntary muscle. However, as we can wink when we wish to and we can't help but wink ever so often, the muscles of the eyelid are both voluntary and involuntary.

Of all cases the inherited case is the worst. In the inherited case, there is an inherited abnormal condition from the very first, and if the child is given the proper instruction in articulation, vocalization, and breathing, and is taught to have confidence in its ability to talk,

and knows just how to speak, then this knowledge becomes a power, and it can converse without any fear, because it knows just how to make the vocal organs obey the will. But if its case be neglected its life becomes one of constant fear and embarrassment. If a kind friend, a loving teacher, or a fond parent does not give the needed instruction and leaves the child in fear and trembling to carve out its own self-cure, it may yield to the taunts of its thoughtless schoolmates or playmates and slowly lose what little will power it may have, and gradually get worse and worse.

The reason parents and teachers do not give instruction to such children is because they do not know how, nor do they know what kind of instruction is needed, and many times think the child will outgrow it. They never outgrow it, however. But you say you know of persons who stammered when in youth who do not after coming to maturity. Did they not outgrow it? No. After they became old enough to think, they began to study their case, and by study and practice they effected a self-cure, or greatly modified the impediment.

Voice is sound produced by the vibrations of the vocal cords in the larynx. At the top of the windpipe or trachea, leading from the lungs, is an enlargement, commonly called "Adam's apple," but really the larynx, or voice box. If a small mirror, attached to a long handle, be placed back into the upper part of the throat (the handle near the mirror must be at an angle of 45 degrees, so that we may look "around the corner," so to speak) behind the tongue we may see the image as drawn in Fig. 1.

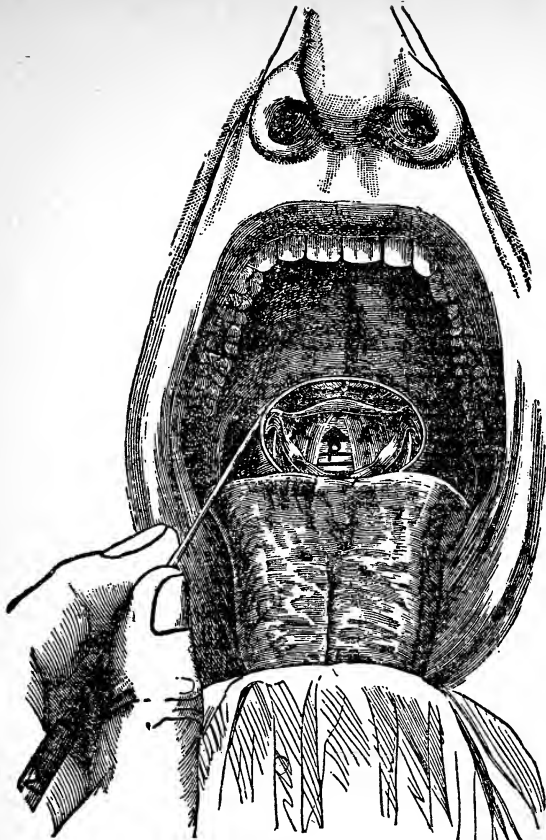


FIG 1

IMAGE OF VOCAL APPARATUS, AS SEEN IN A MIRROR HELD FAR BACK IN THE MOUTH.—From Dr. Cohen's "Health Primer."

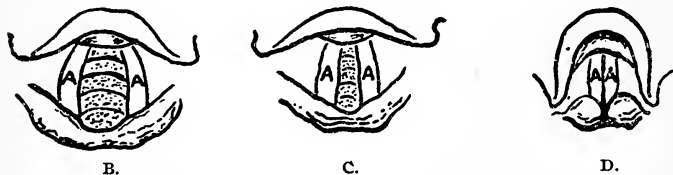
By placing a little mirror into the back part of the open mouth while the latter is well illuminated, we are able to see an image of the interior of the larynx, and observe in greater part the mechanism of the vocal bands in the acts of respiration and production of voice. In this way the register of the voice, as it is termed, can be studied optically, and its transition points be noted by inspection. The credit of the first successful demonstration of this kind belongs to Signor Manuel Garcia, of London, a teacher of vocal music, who in 1854 devised the plan in the interest of vocal art. The manipulation is well known to physicians, who frequently employ it for observing the conditions of the parts in disease.—Cohen.

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The vocal cords A A are shown in the mirror M as narrow bands, on each side of the central opening P. The rings partly seen through the central opening belong to the trachea P. The vocal cords A A are two elastic bands fastened across the larynx between which the air from the lungs passes out.

The arrangement resembles two strips of India rubber stretched across the mouth of a glass tube, into which air is forced by a bellows. When the air passed out of the tube the edges of the rubber strips would vibrate with sufficient rapidity to produce sound. During ordinary tranquil breathing no sound is produced by the larynx, true vocal sounds being formed only during forcible expiration, when, by an effort of the will, the cords are brought close together, and are stretched so as to be very tense. The space between them is then reduced to a narrow slit, at times not more than one-hundredth of an inch in width.

FIG. 2



In this figure A A represents the vocal cords, B represents the position during inspiration, when taking air into the lungs, C represents the position of the vocal cords in the formation of the lower notes, and D the formation of the higher notes.

Voice differs from speech, which is the production of sounds to express ideas. The moo of a cow is voice

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without speech, while whispering is speech without voice. Speech is the result of the action of the cavity of the throat above the larynx, in which the tongue, lips, teeth, and palate change the voice into articulate sounds, which put together form words.

Speech is voice modulated by the throat, tongue, and lips; the modulation being accomplished by changing the form of the cavity of the mouth and nose through the action of muscles, which move their walls. Voice is produced by vibration of the vocal cords in the larynx, which act upon the air, as the strings of a musical instrument or a pair of membranous tongues, or reeds, which, being continually forced apart by the outgoing current of breath, and constantly brought together again by their own elasticity and muscular tension, break the breath current into a series of puffs, or pulses, sufficiently rapid to cause the sensation of tone. Stuttering is restricted by some physiologists to defective speech. Any defective speech, it seems, speaking generally, is stuttering. Stuttering is due to the inability to form the proper sounds, the breathing being normal as distinguished from stammering. To stutter is to hesitate or stumble in uttering words, to speak with spasmodic repetitions or pauses. Stammering is a disturbance in the formation of sounds and is due essentially to mental emotion and to long-continued spasmodic contraction of the diaphragm. In general, as commonly used, stuttering is the repeated utterance of one sound before the next can be emitted; stammering the temporary inability to articulate, the organs being held tightly together. Stuttering is a defect

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in respiration; stammering an inability to control the organs of speech.

Speech is an art that should be cultivated. Conversation is an instrument of acquirement and can be used with power and ease only through much practice. Let us look at the organs of speech. The organs of respiration and voice are the larynx, the trachea, and the lungs. In the neck is a prominence sometimes called "Adam's apple." It is the front of the larynx. This is a small triangular, cartilaginous box, just below the root of the tongue, and at the top of the trachea.

On each side of the glottis (Fig. 4) are the vocal cords (B C.). They are merely elastic membranes, projecting from the sides of the box, across the opening. When not in use they spread apart and leave a V-shaped orifice through which the air passes to and from the lungs. When the cords are tightened,

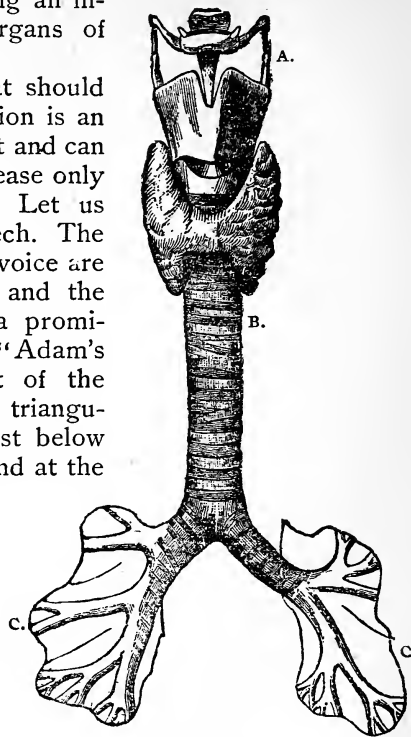
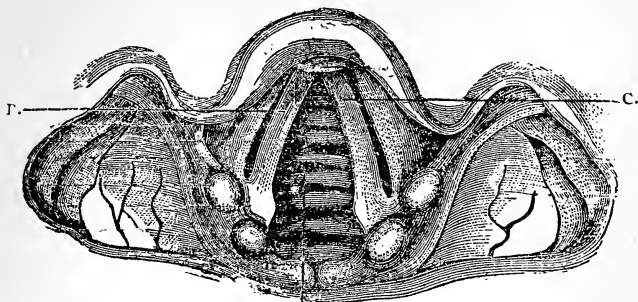


FIG. 3

Figure No. 3 is a drawing representing (C C) a section of the lungs, (B) the trachea or windpipe, and (A) the front view of the larynx. In this drawing the larynx is shown as a triangular, muscular box, and does not show the glottis which is shown in figure 4.

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A.
FIG. 4

ENLARGED VIEW OF VOCAL APPARATUS SHOWN ALSO IN FIG. 1

In Figure No. 4 is represented a view of the throat showing glottis, and vocal cords. The opening into the trachea or windpipe (A) from the throat through the opening between the vocal cords (B C) is called the glottis.

the edges approach sometimes within one hundredth of an inch of each other, and, being thrown into vibration, cause corresponding vibrations in the current of air. Thus sound is produced in the same manner as by the vibrations of the tongues of a mouth organ, or the strings of a violin, only in this case the strings are scarcely an inch long. The higher tones of the voice are produced when the cords are short, tight, and closely in contact; the lower by the opposite conditions. Loudness is regulated by the quantity of air and force of expulsion. A falsetto voice is thought to be the result of a peculiarity in the pharynx, or back of the nose. When boys are about fourteen years old, the larynx enlarges and the cords grow proportionately longer and coarser;

hence the voice becomes deepened, or, as we say, "changes." The change may occur very suddenly, the voice breaking in a single night. The tongue is styled the "unruly member" and is held responsible for all the tattling of the world; but when the tongue is removed the adjacent organs in some way largely supply the deficiency, so that speech is still possible. Huxley describes the conversation of a man who had two and one-half inches of his tongue preserved in spirits, and yet could converse intelligibly. Only two letters (t and d) were beyond his power; the articulation of these involves the employment of the tip of the tongue; hence, "tin" he converted into "fin" and "dog" into "thog." As said at the beginning, speech is voice modulated by the lips, tongue, palate, and teeth. An artificial larynx may be made by using elastic bands to represent the vocal cords and by placing above them chambers which by their resonance will produce the same effect as the cavities above the larynx. An artificial speaking machine was constructed by Kempelen, which could pronounce such sentences as "I love you with all my heart," in different languages by simply touching the proper keys. Speech and voice are commonly associated, but speech may exist without the voice; although there is no vocalization, *i. e.*, no action of the larynx. Whispering is articulation without vocalization, talking is articulation with vocalization. The difference between vocalization and nonvocalization is seen in a sigh and a groan, the latter being the former vocalized. The method of modulâting voice into speech may be seen by producing the pure vowel sounds a, e, i, o, and

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u from one expiration, the mouth being kept open while the form of the aperture is changed for each vowel by the tongue and lips. H is only an explosion, or forcible throwing of a vowel sound from the mouth. In sounding singly any one of the letters we can detect its peculiar requirements. Thus M and N can be made only by blocking the air in the mouth and sending it through the nose; L lets the air escape at the sides of the tongue; R needs a vibratory movement of the tongue; B and P stop the breath at the lips; K and G at the back of the mouth or palate.

Stammering depends upon control of the mind; upon the lack of confidence in the ability to talk. It is the result of an inability of the will to control the organs of speech properly, and the inability of a ready response to the will by the organs themselves. However, the will power is one of the great factors in establishing a cure. Stammering generally develops in youth and is strengthened by years of growth, and unless the person has will power as he advances in years it will be harder for him to cure himself or be cured.

One type of stammering that I will speak of is that accompanied by unnatural respiration. Its power lies in habit, the mismanagement of the breath being rendered habitual before the development of the higher intellectual faculties which govern. One affected thus must endeavor to gain control over the organs of respiration, letting the will make what was an involuntary action a voluntary one until proper habit results. In natural or abdominal breathing, when the inspiration occurs, the abdomen is protruded outward and when the breath is

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exhaled the abdomen is compressed inward (see Fig. 5). But this manner of breathing is not practiced by the majority of stammerers who use the following abdominal method: The upper thorax is expanded and the abdomen is drawn in during the inspiration and

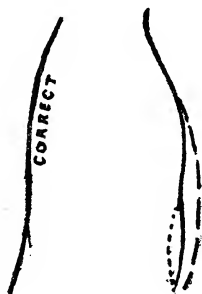


FIG. 5

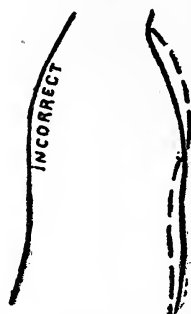


FIG. 6

during expiration the upper thorax is returned to its normal position (see Fig. 6).

Alexander Bell has said: "There can neither be distinct nor graceful articulation if the vocal organs have not a proper position," and, although indistinctness is but a trifle compared with stammering, let us examine and see if it cannot be removed, as it would tend to the formation of that impediment. The following sketches, which represent the throat cleft in twain, show the correct and incorrect positions of the throat for articulation. In Fig. 7 the larynx has been forced down the throat as far as possible, and consequently

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the tongue, which is attached to it, has also been drawn down, causing it to be flattened at its base. Thus we see that the throat, including the pharynx, has been enlarged and the air column given a larger vibrating space, resulting in an increase of the volume of sound. The volume is further intensified and given a more musical quality by the column of air striking the hard palate in the forward part of the mouth. But when the throat assumes the shape as portrayed in Fig. 8 the column of air encounters the soft palate far back in the throat and the vibrating space is greatly lessened. Hence a throaty and suppressed sound is the result.



FIG. 7

CORRECT SHAPE OF THROAT
FOR ENUNCIATION



FIG. 8

INCORRECT SHAPE OF THROAT
FOR ENUNCIATION

RELATIONS OF THE BODY AND MIND TO STAMMERING*

THE relations of the body and mind to stammering is such a complex and difficult subject for an inquiry that I do not write this with the hope of doing full justice to it, but because of my experience as a sufferer I feel justified in writing upon it. No one can be more deeply sensible than I am how little exact our knowledge is of the bodily conditions of mental functions and how much of that which we think we know is vague, uncertain, and fluctuating. In this article I am going to attempt to analyze the different mechanisms and powers which act upon the greatest gift that God has bestowed upon man. One great error which many stammerers make is that they are satisfied to know what stammering is and its effect upon them, but do not endeavor to examine into the intricate machinery which governs speech. It is self-evident that no one can repair a machine until he knows the workings of its parts. Within the memory of men now living stammering was such a special study and its treatment such a special art that it stood quite aloof from general science in a mysterious and mischievous isolation, owing

* Extract from the PHONO-METER. See last page.

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little or nothing to the results of progress in other branches of science, and contributing little to its progress. The reason for this is not hard to discover. The habit of viewing mind as an intangible entity, or incorporate essence, which science inherited from theology, prevented men from subjecting its phenomena to the same method of investigation as other natural phenomena, consequently the treatment of stammering was sadly neglected, men of science not even attempting to apply scientific methods to the alleviation or cure, but the sufferer was generally in the hands of quacks, whose barbarous methods shall for all time to come be a great and ugly blot upon the enlightenment of the age which tolerated them. Nevertheless, there were some men of the medical profession who viewed the defect from a physical standpoint and operated upon the stammerer.

These methods are now of the past, since they will no longer be tolerated. Science has been making rapid strides in the right direction, and now stammering is viewed as a mental defect, with only a secondary defect of the physical apparatus. In fact, the physical defect is merely a weakness, the result of the mental one. The mental suffering of physical pain of an emotion tends to actual wear and tear of the nerve element. We may take it beyond question that when a shock imparted to the mind through the senses causes a violent emotion, it produces a real commotion in the molecules of the brain.

In order to make my analysis clear I shall divide the subject into two parts for investigation, *viz* : The

physical apparatus, and the mental apparatus. The first is easily dealt with, as for centuries each part has been minutely examined, and we are guided by facts which have been practically demonstrated. A brief description will suffice to give the reader sufficient knowledge to work from a proper basis. It is constructed in the following manner: At the root of the tongue lies a minute semilunar shaped bone which, from its resemblance to the Greek letter υ (upsilon), is called the hyoid or u-like bone, and immediately from the bone arises a long cartilaginous tube which extends to the lungs and conveys the air backward and forward in the process of respiration. This tube is denominated the trachea or wind pipe, and the upper part of it, or that immediately connected with the hyoid bone, the larynx, and it is this upper part or larynx that constitutes the seat of the voice. The tube of the larynx, short as it is, is formed of five distinct cartilages, the largest and apparently, though not really lowermost, produces that acute projection in the anterior part of the neck, especially in the neck of males. This is not a complete ring, but is open behind, that open space being filled up in order to make a complete ring with two other cartilages of a smaller size and power, which together form the glottis or aperture out of the mouth into the larynx. The fourth cartilage lies over the aperture and closes in the act of swallowing. These four cartilages are supported by a fifth, which constitutes their basis; it is narrow before and broad behind, and has some resemblance to a seal ring. The larynx is contracted and dilated in a variety of ways, by the antagonistic power

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of different muscles and the elasticity of its cartilaginous coats, and is covered internally with a very sensible vascular and mucous membrane which is a continuation of the membrane of the mouth.

The organ of the voice, then, is the larynx, its muscles and other appendages, and the voice itself is the sound of the air propelled through and striking against the sides of the glottis. The shrillness or roughness of the voice depends on the internal diameter of the glottis, its elasticity, mobility, and lubricity, and the force with which the air is protruded. Speech is the modification of voice into distinct articulation, in the cavity of the glottis itself, or in that of the mouth or the nostrils.

The lungs are like a deep well into which fresh air will not go unless in some way a current is made. We make this current by breathing. The diaphragm is attached to the lower edge of the walls of the chest and stretches across, separating chest from abdomen, forming the floor of one and the roof of the other. When we breathe the diaphragm contracts, being partly muscle, and the top of the chest is flattened. The abdomen is not made larger, but expands in front just enough to make up for what it loses by the flattening of the roof. The muscles of the tongue, cheeks, and throat shape the sound produced by the vocal organs into words. We have taken a brief survey of the physical apparatus and of the means devised by the Almighty to render the transitory ideas of men communicative, and it yet remains for us to examine into the mental apparatus.

Although we know much, and day by day are learning more, of the physiology of the speech apparatus,

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still we are only on the threshold of the study of it as an instrument subserving mental function. We know little more positively than that it has such function; we know nothing whatever of the physique and chemistry of thought without speculating.

The mental faculties are numerous and complicated, so much so it is difficult to arrange and analyze them; in fact, I do not know of a treatise that gives us a clear and methodical classification of them. The general classification divides them into three heads: Intellections, Sensibilities, and Volitions. The intellect is that by which all things material or immaterial, external or internal, moral or unethical, are cognized by the soul. It is universal in its application; it may become the handmaid of any of the faculties; it may devise a plan to murder or to bless, to steal or to bestow, to rear up or destroy; but as its proper use is to observe the different objects of creation, to mark their relations and direct the propensities and sentiments to their proper and legitimate enjoyments, it has a boundless sphere of activity, and when properly exercised and applied, is a source of high and inexhaustible delight.

The sensibilities are the capabilities of the mind for experiencing the feelings, namely, the emotion by which the mind is excited or the desires by which it becomes apprised of objects. The will is the volitional power by which alone the soul consciously becomes the intentional author of external action, whether of mind or body. A simpler division, in my judgment, is to divide the mind into the powers or faculties of understanding, election, and emotion. To the first belong the principles of per-

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ception, thought, reason, judgment, memory, and imagination; to the second those of choosing and refusing, and to the third belong those of hope, fear, grief, joy, hatred, anger, and revenge; in fact, whatever is capable of moving the mind from a state of tranquillity.

Now, what are the uses or proposed ends of this extensive and complicated machinery of the mind? What are the respective parts which its various faculties are intended to fulfill? Their object is threefold and in every respect most important, and admirably calculated to prove the wisdom and benevolence of the Almighty Architect. They are the grand sources by which man becomes endowed with knowledge, moral freedom, and happiness, and hence fitted to win the elevated place of a rational being. From the powers of the understanding he derives the first, from those of election the second, and from emotion the third. Yet never let it be forgotten that he can in no respect, or at least to no considerable extent or good purpose, possess either the one or the other unless the mind as an individual agent maintains its self-dominion and exercises a due degree of government over its own forces. This I think must be obvious to every one, and it is from this harmonious balance, this equitable guidance and control, that perfect speech results and raises him to the perfection of human character.

These are the powers and actions that lay out the pathway of man's life. They act upon the stammerer as on the ordinary person, but to what degree depends upon the condition of the faculties. If a man's reasoning faculties are poorly developed when a thought flashes through his mind, instead of that faculty taking possession of it

at the proper time it will allow it to pass on to the physical machinery before it is prepared for it. It is the dictates of moral and intellectual powers that constitute rules of conduct, and results in the collective dicta of the highest minds illustrated by the greatest knowledge.

Now that we have examined the different parts and functions which comprise the gift of speech, we must turn our attention to the manner of treatment in order to use this great gift to its best advantage. The keynote for getting the mechanisms and functions into the best possible condition for effecting a cure is human development. It relates to both the physical and mental apparatus. Exercise is its greatest agent. By it the ideal man is produced, that is, one who is moving in all respects toward perfection and not in the other direction. He is a man with a vigorously healthy body, a great mind, and a large heart, who has assimilated all he knows, whose original ideas outnumber those gained from books, and who is blessed with as many emotions as ideas. It means that a man can multiply himself until he is ten men; he may increase his native powers tenfold and accomplish what he now accomplishes and do it ten times better. If he is weak in mind or body he may become strong, and if dull may become brilliant. If he is now following instead of leading he may reverse this condition, and if his influence is now scarcely felt he may so enlarge his force as to transmit power around the globe. First, in regard to the development of the physical parts. Good health means more than freedom from disease. It means such an abundance of life and vitality as to give the sense of

physical vigor. It is the foundation of intellectual success and good character. All virtues and generous impulses of noble nature spring from robust health. Exercise ennobles and leads to health and joy, necessary attributes for a successful cure. Mind as well as health is the product of both nerves and muscles. Only in a harmonious life, combining physical and mental labor for each day, is there possibility of health, strength, intellect, and long life.

Breath is the material out of which voice is made and it should be abundant; it should be obtained in the proper manner and used with discretion. Exercise in deep, effusive, and expulsive breathing will be found of the greatest utility in enlarging the capacity of the lungs and giving the student more perfect control over his voice. Gymnastic and calisthenic exercises, when not carried to excess, are of great service in developing the voice, and, indeed, the habit of performing certain muscular actions such as tend to expand the chest and produce a general glow of the body without causing fatigue, is very beneficial. Air should never be taken into the lungs except through the nostrils, since nothing is more injurious, whether to a pure quality of voice or to health, than the habit of breathing through the mouth. The rule is of vital importance to those who have any tendency to disease of the lungs, larynx, or bronchial tubes. Stammerers, as a general rule, use only a limited portion of the lungs, that which lies in the upper part of the chest, which, consequently, is overworked, superinducing a sensation of feebleness and exhaustion.

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In speaking, the effort should, by all means, be made below the diaphragm, which, as we have seen, is the muscle forming the floor of the chest, then by its depression, admitting the air into the lungs, and elevation, expelling it therefrom through the glottis and larynx, it is converted into sound and thence into the mouth, where, by the action of the various organs, it is converted into speech. The observance of this precept, whilst conducive to the ease and comfort of the speaker, and giving him more control over the organs of speech, will also help to develop greater strength and fullness of voice.

The stammerer, after perfecting his breathing, should turn his attention to one of the most essential requisites of speech, *viz*, articulation. There is an intimate relation between distinct enunciation and true cultivation of the mind. Austin says: "In just articulation, the words are not hurried over or precipitated syllable over syllable. They are delivered from the lips as beautiful coins, newly issued from the mint, deeply and accurately impressed, perfectly finished, neatly struck by the proper organs, distinct, sharp, in due succession and of due weight."

The student should practice long and faithfully on the elementary sounds of our language. He should give special attention to developing symphony, or ease of utterance, which can be accomplished by prefixing or suffixing the consonants to the vowels and repeating them several times.

Now in regard to vocalization. Let him develop modulation. It is the music of speech and the melody

of oratory. It enables the stammerer to control himself by a slow style, and at the same time give the sentiment its due force and relative position. So the whole discourse is breathed forth in harmony which is pleasant to the ear, with the speaker controlling each successive action. To enable the student to acquire this he should daily practice prolonging the vowel sound after taking a deep breath, in a firm and easy manner, until he has expelled the breath. Then continue the same practice, but give the vowels a rising and falling inflection. The degree of force given to vocal sound is taken as the measure of the emotion which causes it, except where feeling becomes too strong for utterance, and is able to manifest itself only by choked or half-articulated speech. But a command over all degrees of force can be obtained by practice. Health nor strength of lungs without thorough discipline of the organs of speech can give this. Assiduous practice and untiring labor will produce the best results. Again, let the student exercise the muscles of the lips and make them strong and flexible, so that they will quickly respond to their proper function. As the shrillness and roughness of the voice depend on the glottis, it should be properly developed by exercise. Therefore let the student acquire deep respiration, firm and easy vocalization, wide and free articulation.

We will now turn our attention to the mental side of human development. I hope that I may be able to impress upon each and every stammerer the importance of this. I have found that very many of the afflicted, on account of their infirmity, will leave school at an

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age when it might be said their education is only beginning, and seek some secluded employment where they will not be required to talk, and then surrender to the enemy without making any kind of a fight. Even those that can well afford a college education will shirk from it and prefer to isolate themselves so as not to come in contact with those who make up this great universe. Reader, this is one of the greatest errors a stammerer can make. Instead of training those faculties, which are to be the foundation of his cure, he neglects them and is handicapped by working with dull tools instead of having them sharpened to their keenest edge. In these days of our public schools, free libraries, cheap, but good literature, there is no excuse for any one not developing the mental faculties. Let me exhort every stammerer not to be abashed and surrender, but while in his youth especially, and, in fact, all his life, let him seek for knowledge and aim at the highest step on the ladder of fame. Prepare to fight the battle of life with all the vigor and enthusiasm you can command. Do not let the embarrassments of the school room or of business life drive you away. Let your highest nature assert itself and allow nothing to daunt you in the fight. Man appears on earth only partly made. His is an unfinished product. His creation is only begun. He should build himself to bear his burdens, for if they cannot be lightened he can become a giant to bear them. Although the possession of observation, imagination, emotion, reason, etc., is dependent upon heredity, yet whether one inherit them in a large or small measure, he may enormously add to their strength. How? By

education. According to man's thinking, and his power to think, is the whole measure of the man. His thoughts are himself. Discipline is the condition of his increase. Education is the great idea. It implies the science of man himself in all relations, and is the highest chapter in human philosophy. It is the work of enlargement, improvement, progress, advancement, refinement, and elevation, all of which are mighty arms for the stammerer's combat. "As a man thinketh so is he." Hence the thinker is your real man, because he insists upon his inalienable rights. Everything must give way before him—all the secrets of nature, all the complexities of society—and on account of the development of his will is strongly fortified against stammering. A thinking and reflective mind is almost a safeguard against stammering, as it brings about a style of speech which is deliberate and firm. This power of thinking is developed by study. In this exercise the soul grows mighty, ideas are forged out, and at length receive glorious embodiments. From the smallest incidents and the most casual chances the thinker weaves the grandest results. Never give up fighting, and remember the old saying that is quoted so much but never loses its force, "Where there is a will there is a way."

Let the stammerer keep the fire of his ambition aglow, use every energy, and bring forth his force of manhood to fight this great battle. He must learn to depend upon self and not say, I will allow so and so to cure me. Rather, he must say, I will procure the valuable assistance of so and so and with that assistance use my energies and thereby perfect a cure. He will never

gain anything if he simply follows a set of rules in a listless manner. Remember what Bacon says is true, "Knowledge is power." You are looking for power. Procure knowledge at all hazards. It opens to you a new vista of happiness, makes an intelligent citizen, and enables you to fulfill with a higher degree of excellence the duties laid upon you by the Almighty. It is a companion which no misfortune can depress, no clime destroy, no enemy alienate, no despotism enslave, at home a friend, abroad an introduction, in solitude a solace, in society an ornament, it guides virtue, and gives grace to genius.

Following are some of the rules that have been laid down by men who, in the past, have done much for the stammerers' cause:

1. Pupils must apply themselves seriously and with perseverance to practice a system until it becomes a settled habit with them.

2. Before speaking they must be careful to take a full and quiet breath, and to renew their respiration according to the sense of the phrase, and never to speak when air is exhausted.

3. Be careful in regard to the movement of the lips and tongue.

4. Preserve a good syllabication. This is easily hidden by the intonation and inflection of the voice.

5. Speak with assurance, keep watch of the omission of your words, exercise full control over yourself, and the more you feel embarrassed the more you must speak slowly, coolly, and deliberately. In a word, be ever on your guard and watch yourself attentively.

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6. We may sum up the system in three words, *viz.*: Respiration, syllabication, and tranquillity. These include everything and are equally indispensable.

7. Take advantage of all opportunities to speak slowly, as, for instance, when you are with your family and friends. Pupils will profit much more by slow exercises than rapid ones.

8. Let the pupil have courage and patience; he must never be disheartened with the work, but must have confidence in himself and not be intimidated by others. He will then obtain an enduring success.

PECULIARITIES IN STAMMERING AND HOW TO OVERCOME THEM

IT HAS been apparent to me for several years past that of numerous different forms of stammering there are two types strikingly different, which can be subdivided into as many different classifications as there are types of man. No two cases of stammering are exactly alike, each having its own phenomenon, and yet a true statement, and apparently a contradictory one is this, that all cases are exactly alike—the difference in type amounting only to a difference in physical manifestations or in severity, a mental idiosyncrasy existing in every case as the parent cause of the difficulty. Every person, or nearly every person, who stammers imagines that his own case is peculiarly different from others. He tells you of little peculiarities which he imagines are entirely unlike other cases of stammering, and yet nearly every other person so afflicted repeats to you the same story. One man tells me he suffers great embarrassment in talking in the presence of strangers, but no difficulty whatever when talking with his immediate friends or relatives. Another states that he has the

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most difficulty in talking with his own immediate relatives, while conversation with strangers causes him no trouble whatever. Another states that in the morning his trouble manifests itself more than at any other time during the day. Another has greater trouble in the evening after his day's work has been finished. I could go on in this way and fill a whole volume with the peculiarities of a great number of cases, but will discuss such later and devote my time here to the two first mentioned. It appears to me that persons suffering from stammering to the greatest degree in the presence of strangers or under embarrassing circumstances, are, morally speaking, "cowards." The reader must not take it that I am calling him a coward because he stammers—I use the term only so far as his talking is concerned and not in its literal sense as ordinarily used; yet it is a well-known fact among authorities on stammering that stammerers, because of their infirmity, hesitate to go into any undertaking' fearing failure. Their feeling of uncertainty concerning their talking generates a like feeling concerning their success in any undertaking dependent upon their talking, and as there are but few vocations where fluency of speech is not called into question it leaves that feeling of uncertainty always resting in the mind of the stammerer. Having from his earliest infancy realized that others could say those things which he could not, and because of this do those things which he could not do, he naturally learns to regard himself as an unequal. He realizes that others have had bestowed upon them by God and by Nature those gifts which he does not possess, and from this

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unfortunate circumstance arises within the mind of nearly every stammerer a certain feeling or sense of inequality which makes the man afraid to enter into any undertaking through fear of failure, and it is in this sense that I say he is a "moral coward." The time for instantaneous cures in stammering has long since passed, and intelligent people have learned that it is necessary to change to a certain degree the likes and dislikes of the man to reorganize his disposition and regulate his actions, if we must have the best kind of a cure. For this reason let the reader, if he be a "moral coward," commence at once to work a change in his manner of viewing the world. Let him assume a different attitude toward everybody. Let him act on the aggressive, not on the defensive, which way has too long characterized his actions. He must abandon his feeling of inequality and substitute instead that feeling of equality which should be our inheritance and our birthright, "All men are born equal."

To straighten to a perpendicular position a tree that has grown toward the west wind the horticulturist will tell you to bend it toward the east in order that nature may straighten it up. To gain a feeling of equality, if you now possess one of inequality, begin at once to court a feeling of superiority. You must imagine yourself not only the equal of your equals, but you must, through concentration of thought and education, believe yourself superior. You must do at once without hesitation anything that falls to your lot to perform. Assume no longer toward the world that passive attitude which has characterized your every-day life in the past—but

with buckled shield and sword, step out upon the bivouac of life prepared for the conflict, equal to any emergency, and with the brand of determination and defiance stamped fairly upon your brow. This alone will not overcome your difficulty in talking, but will largely overcome those conditions which now make your life so full of misery, and with continued effort in one direction I have no doubt but it will largely lessen the severity of many cases of this type of stammering, with probable chances for complete recovery.

When you have once resolved to accomplish your cure go at it with a determined effort, and "never give up the ship." A broken vow or a resolution unkept leaves you in ill condition. Better that you do not make any resolution at all than that you break your vow. See to it, then, that when you have said to yourself and your friends that "you will be cured of stammering," that you keep this promise true, never relinquishing your determination even for a moment. Many persons go into every undertaking in a half-hearted manner, from which it is little wonder that few are successful. A great many persons suffering from stammering go about trying to rid themselves of their difficulty in about the same manner. They do not know whether they will be successful in getting cured or not; somehow or other they do not think they will—and without self-effort on their part it always ends in about that way. Such persons, under the direction of a good teacher in the institution, when made to work, often turn out to be the best kind of cures; but it requires plenty of urging and lots of "making" on the part of the teacher.

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Persons who experience greater difficulty in talking to their own immediate acquaintances and friends than in talking before strangers are more characteristic in their manifestations of genuine stammering than the class of the opposite type. Dr. Klencke says:

“The stammerer usually speaks better when he is forced to pay attention to himself,” and adds that “he betrays his defect when careless, but by the action of his will he can partly or wholly overcome his difficulty.”

To speak with the greatest possible fluency persons addicted to this form of stammering require an abundance of mental energy of the will which they manage to summon up when placed under trying circumstances and which serves to co-ordinate then the desire for expression with the movements necessary for harmonious action of the speaking organs. This energy is oftentimes generated at great expense of fatigue which follows immediately afterward, the feeling experienced after the mental strain has subsided being much the same as that which follows the use of stimulants. Thousands of my readers, I am sure, have experienced this feeling hundreds of times and know what a depressing sensation it creates. The effort is usually mental but is always accompanied by a corresponding physical effort, which consists of quickly forcing a quantity of air from the lungs, a contraction of the diaphragm and abdominal muscles and a muscular effort of the entire waist region of the body as if to support the effort of the mind, which is simultaneously endeavoring to control the tongue. This is many times carried to excess and to such an extent that continued effort, even though

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fluent speech follows, results in a fatiguing sensation and pain in the diaphragmatic region and in the abdomen. Many persons who stammer are subject to these pains, which though not acute are nevertheless unpleasant and worrying. The writer has in mind cases of this form of stammering where the effort mentally and physically to effect utterance resulted in prostration and where the unfortunate sufferer was subject to convulsions as the outcome of repeated occurrences.

The reason why the stammerer is able to control himself in the presence of strangers is explained by the fact that he can control himself either partially or wholly under trying circumstances by the exercise of his will power. If unable to do so, it is characteristic of stuttering rather than stammering, but there are many persons who suffer from both ailments at one and the same time. Under such circumstances or when the contact is with strangers the desire on the part of the sufferer (naturally one of concealment) is to appear well. His pride is at stake and he realizes that the opinion of his newly-formed acquaintances may be alterably changed if he betrays his natural defect, and thus he exercises all the will power he can possibly summon up, and by both mental strain and physical effort manages by hook or by crook, by avoiding obstacles, substituting phrases, and using synonyms, to avoid all difficulty for the time being. Indeed he may not under such circumstances even require to use synonyms, but may be able to talk fluently and without interruption.

Strange as it may appear, this same person in conversation with his own immediate friends may be

able to utter but few words without his impediment betraying him. This phenomenon calls for a change of condition, which the stammerer must bring about by his own efforts, both mentally and physically, if he wishes to obtain relief. The fact that he stammers in the presence of his immediate relatives is explained by the circumstance that they know he stammers. There is nothing to conceal from them. His pride is in nowise affected by their knowledge of his impediment, because he appreciates in his mind the fact that his defect draws out their love and sympathy rather than ridicule. He is thus off his guard, and from the fact that he does not exercise mental energy to control his fluency he suffers in consequence. Let him use the same caution and feel the same embarrassment and humiliation when conversing with his friends that he does before strangers, and he will experience little if any difficulty. He will at least experience no more difficulty than before newly-formed acquaintances.

Let him say to his mother or to his father, "I promise you on my word of honor that I will try to never again let you hear me stammer." Let him then keep his promise. Let him feel it a disgrace to stammer, and a humiliation even in the presence of his most intimate acquaintances. He must summon to his aid such unflinching zeal and purpose of mind as will not allow him, even in the presence of his own, to falter for a moment. Stammering begets stammering and he must therefore not stammer.

The fatigue which I have described both of mind and body as the result of excessive mental and physical

effort may be largely lessened by the principle of relaxation. I do not mean relaxation in the generally accepted meaning of the term, but what I do mean is relaxation from excessive mental and physical effort, without relaxing from determination to surmount all difficulties. One may think less copiously yet with concentration, and one may infuse determination into an undertaking and into his talking, which from the fact that the latter consists of even utterances may nevertheless be with as much resolution of purpose as though effected with great effort and with unsteady purpose.

A correct breathing habit will largely aid in accomplishing the desired result, inasmuch as the effort mentally, as already explained, is accompanied by an abnormal action of the respiratory apparatus. The stammerer usually contracts his diaphragm when approaching a word difficult of utterance, at which time he generally exhales the breath with which he should fill the abdominal portion of his body if he wishes to speak well. Deep inspiration and expansion of the abdomen should be practiced when under approaching fear of stammering, when the diaphragm would otherwise contract.

In any case of stammering a general building up of the constitution through a good system of physical exercises, having as its aim the accomplishment of muscular action by the direction of the effort of the mind, will do much to aid in obtaining satisfactory results.

One singular thing about some persons who stammer, and a peculiarity which I have never heard discussed, is that one who stammers has less difficulty in talking to a person who is like afflicted but whose im-

pediment is more manifested. The reason for this is probably due to the fact that there is a natural inborn tendency to the saying that "misery likes company," but when the company is the more miserable the tendency of the most miserable is to self-congratulation. In this there is no doubt engendered a feeling of confidence from which arises fluency. On the other hand, persons who stammer coming in contact with others similarly afflicted, but to a lesser degree, usually behave poorly. The converse in argument that applies to the first named peculiarity will probably apply here. The feeling of satisfaction of human nature in the evil of joy at others' misfortunes is offset by the fact that their misfortune is the lesser. Why were others not afflicted as badly as they? Whether these are true solutions to the problem is for the reader to decide, but the fact remains that with but few exceptions where two stammerers meet in conversation it increases the contortions and manifestations for one and lessens the difficulty of the other. The remedy is self-suggestive. Let each congratulate himself that he can talk at all and that there are others in a worse predicament than he and it may lessen the difficulty for both. Let each imagine that he is superior, as it may be due to the feeling of inferiority and superiority that one has difficulty and the other none. Another peculiarity among certain classes of stammerers is the circumstances that when they come up with a word that causes them to stammer, and when, after repeated effort they are still unable to effect its beginning, they find when they endeavor to write the word for the purpose of better explanation, having written upon paper the first

syllable commencing it, they are at once without further effort and without finishing the writing of the whole word, able to enunciate it perfectly. In asking a class numbering upwards of eighty pupils as to their experience in this matter fully 25 per cent. held up their hands as having had similar experiences. This is a common peculiarity among stammerers, to which of course may be exceptions, and there may be many who have never tried the experiment.

Speaking scientifically, there is no question but that a physical movement accomplishes a mental desire, and this is without doubt the solution to the problem. The stammerer is not lacking in desire for utterance, but in co-ordinating his desire with the execution or act itself. The movement of the pencil upon paper of itself acts as a harmonizing influence and serves to keep back the current of thought which otherwise piles up in such rapid succession that the organs physically are unable to execute them. It requires also a generating influence to move into harmonizing action the organs co-operating with the functions of the brain and in this any physical movement is an aid. This is shown more forcibly in gesture than anywhere else where physical movements are used almost entirely as a means for accomplishing mental desires. Another peculiarity of the same circumstance is the fact that after great effort once having said the word, the stammerer can repeat it without difficulty. If it caused him no difficulty to say it in the beginning when asked to repeat it, nine times out of ten he cannot do so. The scientific explanation for this phenomena may be in the circumstances that in the first

instance confidence in his ability to utter the word having been established at the cost of great effort he realizes that he can say the word, and can then repeat it as often as he wishes to.

On the other hand, having unconsciously uttered a word without difficulty, his attention being called to it when asked to repeat it, he is unable to do so, owing to the fact that he at once loses confidence in his ability to effect utterance. After great effort, having temporarily mastered it, he finds he can repeat it again and again without further difficulty. Were this temporarily established confidence to be of a lasting nature it would require only a succession of efforts and fighting in order to permanently master every word in the English language. Unfortunately for the stammerer his confidence is of the thermometer style, it rises and falls, and, like the barometer, it changes with the atmosphere and environments in which it is placed.

There is a peculiarity among persons who stammer that I have touched upon briefly, *viz*, having unconsciously uttered a word without difficulty, his attention being called to it, when asked to repeat it the stammerer is generally unable to do so. Ask him what time of day it is and he replies 10 o'clock. "What did you say?" you ask, and he is unable to effect an utterance or to say a word. I have no doubt but that fifty per cent. of my readers have experienced this same difficulty, but under different conditions. The explanation for this peculiarity is probably in the fact that the stammerer prearranges for himself mental pictures of words or sounds which, when he tries to effect their utter-

ance, cause him great difficulty. These mental pictures are sometimes of a permanent character and sometimes are only temporary. Some persons who stammer carry around in their mind a whole vocabulary of sounds and letters upon which they know they will surely stammer, while other words known to them as synonyms cause them not the slightest difficulty. It is largely owing to the mental picture that the stammerer constantly sees before him of word difficulties that he becomes inventive, and it is sometimes surprising the alertness with which some such persons manage to conceal their impediment. For instance, in such a case as that of the man who was asked what time of day it was and then requested to repeat his answer, a stammerer ever on the alert to avoid word pictures would invent some means to avoid stammering on the repetition of his answer. He might deliberately take out his watch again and reply that it was "a few minutes to 10 o'clock," which would be easier for him than a direct answer, "Ten o'clock." He might turn the face of his watch to the questioner, in which case he could more readily repeat his answer when he understood that it was not necessary to do so. There is no telling what he might do, but rest assured, such persons are quick, and always ready to "beat the wolf around the bush." Mental pictures of difficulty often present themselves without warning, and are sometimes uncertain in that they appear and vanish. One moment the stammerer believes in his ability to utter a word, and were he to try he could do so; the next instant the hallucination returns, and try as he may he is unable to utter the word. The greater the effort

the less he can say it. Sometimes the hallucination is lasting, with the result that he is unable to say the word under any circumstances without great effort, when temporarily he may be able to repeat it, only to find that the picture of difficulty returns when his mind has settled back in a state of repose. Word pictures are likely to change in the mind of the stammerer. A man who has trouble on words commencing with closed consonants may lose thought and habit entirely of difficulty on such sounds, only to find, however, that his trouble has been transferred to continuous sounds. Labials may present themselves as obstacles difficult of utterance, and may entirely disappear, only to be substituted by gutturals, which may in turn give way to vowels, and so down through the whole vocabulary of sounds and syllables. There is nearly always, however, a balance of power maintained, or, in other words, when the difficulty disappears on one sound it is almost always sure to manifest itself on another. Cases of stammering are so unlike that it is difficult without knowing the particular temperament and disposition of the sufferer to lay down any set rule as a remedy that will apply alike in all cases, because what might prove valuable advice in one case might serve only to aggravate another. The difficulty, however, inasmuch as it is both mental and physical, can be combated only by a physical and mental means. The correct position of the organs of articulation must be studied, the application of certain principles and the results. If the difficulty is manifested in the gluing together of the tongue and upper gum, as is the case in stammering upon the letter "t," the

results must be at once apparent to the observer, *viz.*, that the greater the effort to effect utterance under such conditions, the less able we are to accomplish our aim. From this must come the self-suggested physical remedy of no effort. The organs must be relaxed and the beginning of the word effected with a whispered utterance. Mentally the course or channel of our thought must be diverted. The stammerer must in some manner or by some means dispel from his mind the hallucination of fear that grasps hold of him, and in this the concentration of his mind upon the manner of his utterance will serve largely as an instrument of accomplishment. He must not allow his mind to dwell upon "what" he is going to say, but rather upon "how" he is going to say it. This "how" he is going to say it is of course the problem that all stammerers are trying to solve. I have thus pointed out a means toward the easier enunciation of words commencing with the letter "t," and have suggested the remedy of no effort as contrasted with excessive effort. This can be accomplished through the whispered utterance and the diversion of the trend of thought above suggested, *viz.*, concentrating the mind upon the manner of utterance rather than upon the word you desire to utter. The whispered utterance is of itself significant to the mind of the stammerer of the relaxation, as in the whisper we have the embodiment of nothing excessive. It requires but little effort and but little energy to perform a whispered utterance. A dying man can whisper when he can no longer vocalize, showing that but little stimulus is necessary to the performance of the act. I do not wish any reader to take

from my writing that I advocate whispering as a substitute for vocalization, but what I do wish to imply is that vocalization should (in cases where the difficulty is manifested in excessive effort) be preceded by the whispered utterance. Many will wonder what I mean when I speak of a whispered utterance. A whispered utterance, according to my usage of the term, implies a word the beginning of which is a prolonged whisper, followed of course by vocalization. Every word spoken has a certain degree of the whispered utterance attached to it, which is either prefixed or affixed. The stammerer should endeavor to prolong the whispered or breath portion of his words and avoid, by correct principles of physically applying his organs of articulation, the hard and difficult letters likely to cause him difficulty. The remedy for words commencing with the letter "t" is suggestive of similar remedial means for other letters, but through other channels. We must in every case search out the manifestations and apply the remedy accordingly. Word pictures and mental hallucinations of difficulty in enunciation can be overcome largely after the manner above suggested, but it is better to gain first a thorough knowledge of other exercises necessary to the cure, and also an idea of the analysis of sounds. It is not the knowledge of any one principle to overcome stammering that effects the cure, nor is it the knowledge of all principles, but rather the knowledge of all principles and their practical application.

SUGGESTIONS FOR STAMMERERS

CONTEMPLATING TREATMENT AND FOR PARENTS OR
GUARDIANS OF STAMMERING CHILDREN

THE MISERY OF STAMMERING

MANKIND, while superior to all other living creation, and enjoying the richest blessings of a merciful God, is at the same time heir to the most grievous and terrible afflictions that are visited unto the animal kingdom. Although the blessings exceed the afflictions by a thousand fold, yet how often we forget the many blessings in brooding over our afflictions. The blind, the deaf, the mute, the maimed, while compelled to fight life's battles under grave difficulties, have reason to be thankful beyond expression, when they note the condition of the imbecile. So highly do we prize the power to see, hear, and be heard, that rather than be deprived of it we would prefer death itself. Imagine, then, the condition of the imbecile, who, though possessing all the necessities of a perfect physical development, lacks the intellect, the mind, the reasoning faculties, the absence of which sinks man beneath the lowest brute. If a

man is blind he soon realizes how useless is an attempt to see. To the deaf sound is unknown, hence he does not understand the severity of his affliction, while the mute is always resigned to silence, and, therefore, in reality knows not the value of speech. Thus, in this connection, an affliction that is absolute is more merciful than one that is but partial. If there were intervals when the blind could see, the deaf hear, and the mute talk, their quiet and peace of mind would be destroyed forever. Such is the condition of the man who possesses the power of speech, yet cannot talk. His intellect is keen, his reasoning clear, his vocal organs perfect, yet he is wholly or partially unable to vocalize his thoughts and produce intelligible speech. He is bound, as it were, hand and foot by the most cruel, cutting, and galling bonds that ever restricted or impaired the hopes and aspirations of an ambitious man. He is a victim of that despotic affliction which has ruled and ruined many lives, and is known to the world as stammering. His condition invites the sympathy, aye, the pity, of his fellow beings who are so fortunate as to possess unfettered speech. That sympathy is usually extended in the kindest manner, although the poor stammerer is sometimes compelled to suffer from the ridicule and derision of those who in intellect and nobleness of character are not, and probably never will be, his equal. But real sympathy, such as is inspired by a direct personal knowledge of the affliction, the vast majority of people are utterly unprepared to give.

We read to-day of a famine in India, or of atrocious deeds perpetrated in Armenia, and we sympathize with

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the unfortunate beings who are thus compelled to suffer, but had there been a period in our lives when we were compelled to stand helplessly by and see our loved ones perish one by one, from the want of food, or fall by the knife of the barbarous Turk, our sympathy would increase tenfold and be of a deeper, more tender nature. So it is with the stammerer. He receives true, heartfelt sympathy only from those who have likewise suffered, and who have experienced within their being, their mind, their very soul, that patient longing, that mental craving, that burning desire to speak, to converse, to be understood, to possess the power and ability to give intelligent sound and expression to those thoughts which for years have remained helplessly imprisoned within their brain, of but little use to themselves, and entirely lost to their fellow men.

Those who possess perfect freedom of speech, who at all times and under all circumstances can give utterance to their thoughts, are incompetent to realize the suffering of the unfortunate stammerer. They know not the agony of mind, the mental torture, the terrible misery that he is compelled to constantly undergo. His inability to give verbal expression to his thoughts naturally leads to the opinion among his associates that the affliction has not only fettered his speech but his intellect also. Thus, to the embarrassment of a speech defect is added the unenviable reputation of a weakened intellect. In this respect, however, a greater injustice could not be done the stammerer. To be sure, his education is neglected, for in school he is the laughing-

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stock of the class, even his attendance, in many cases, being made compulsory by his parents. A college course, with his defective speech, has no charms for him. And so, year after year, a naturally keen and brilliant intellect remains inactive and undeveloped.

To the average person the presence of a severe stammerer is especially disagreeable. Therefore he suffers from a social ostracism and is benefited by none of those refining influences which always attend an association with the cultured and educated. Consequently he is oftentimes rough and uncouth in manner, while inwardly possessing the true instincts of a noble man.

In the business world the stammerer rarely enjoys a successful career. The same obstacle that prevents his entry into society closes to him the door of prosperity. A business man must be congenial—the stammerer can not be.

From the literary field he is also barred by that same, seemingly insurmountable barrier. He is hampered in whatever he undertakes, be it of a social, business, or literary nature. In the face of these difficulties and failures which attend his every effort toward advancement, is it any wonder that the stammerer loses hope, energy, and ambition? Life to him has no pleasures—it is merely existence. His past is lost, his present a failure, and his future a hopeless blank.

Such was the condition of the stammerer until within the last few years. But now the light and progress of the nineteenth century has penetrated the dark clouds which overshadowed his life, and made it possi-

ble for him to surmount the barriers, gain the level, and run the great race of life on an equal footing with all mankind.

STAMMERING A HABIT

With many persons stammering is purely a habit, oftentimes the result of lack of proper training in youth.

The first attempts at speech made by children oftentimes reveal slight indications of stuttering; but not generally before the individual becomes completely aware of his defect with all its horror do the parents try to obtain for their child relief. The little prattler, instead of being continually corrected for its imperfect articulation, is oftentimes encouraged in its baby-talk by its parents and friends until it becomes second nature for it to mispronounce and misarticulate words and syllables. The writer has known children of from ten to fifteen years of age who had never entirely forgotten their baby-talk, and slight traces of it were oftentimes noticeable in their conversation.

Many of these encouraged baby-talkers have turned out to be stammerers. This way of dealing with the trouble is equally as wrong as it would be to postpone to a later period the necessary orthopedic treatment of a child tending to bodily deformity. As the child grows, the evil, instead of decreasing, increases, eventually leaving its victim a stutterer or stammerer of the most severe type. Thus what was at first, by the parents of the child, encouraged, becomes to it, later on,

second nature, and oftentimes a bad and disgusting habit.

Many parents answer their children in this same baby-talk. Thus the child is taught and confirmed that its own mistakes are correct, and gradually grows into that evil manner of talking, whence stammering and stuttering arise.

It is surprising with what fidelity a child will imitate whatever it sees or hears. Children hardly able to talk oftentimes surprise their parents with their knowledge and actions. Therefore it behooves all parents to exert the utmost carefulness in the training of their children, and to watch for and correct any tendency to a faulty or imperfect articulation.

Never strike or scold a child for defective utterance. A spirit of firmness, with nothing to startle or excite, but rather with a tendency to kindness, will be found to be of much value. Canon Kingsley says: "Fear of bodily punishment, or even capriciousness in his teacher's temper and rules, will surely confirm the bad habit. If he is by any means kept in a state of terror, shame, or even anxiety, then this stammerer will grow worse and worse as he grows older."

Ask the child to slowly and carefully repeat what has given it difficulty to utter; if it be a request, do not grant it until the child has done its best to ask for it correctly, always speaking to it in a manner to indicate that you are positive. A splendid practice, and one which gives noticeable results almost immediately, is to teach to the child some simple rhyme or story, have it repeat after you correctly, exactly what you say,

being always very careful not to talk in an affected or exaggerated manner.

If the child is quite young, teach it first to pronounce correctly each letter of the alphabet. Many children attempt to speak upon insufficient breath, first expelling nearly all the air from their lungs; they then begin to give utterance to partially formed words and syllables. Such should be taught to carefully inhale before attempting to speak, and never permitted to begin a sentence in a quick or hurried manner. Let the proper time be given to the development of the lungs of children, and much of the tendency that exists at the present day to pulmonary troubles would vanish, and there would be more bright, merry voices, and, consequently, happier hearts in our schools and homes. Teach the child the proper mode of breathing, the correct manner of articulating, and much of the sorrow and distress, the result of stammering, would give way to cheerfulness, and happier lives would be the result. The old proverb, "A stitch in time saves nine," is especially applicable here.

The following is an extract clipped from an article written by Dr. Morrell McKenzie, for the *Popular Science Monthly*: "It is hardly an exaggeration to say that the training of the voice should begin almost with the cradle. I do not, of course, mean to say that a baby should be taught to squall according to rule, or that the prattle of children should be made a laborious task, but I wish to insist on the importance of surrounding the child, as soon as it begins to lisp, with persons who speak well."

THE MIMIC

“All languages,” old Roger Ascham says, “both learned and mother tongues, are begotten and gotten solely by imitation, for as ye used to hear so ye learn to speak; if ye hear no other ye speak not yourself, and whom ye only hear of them ye only learn.”

Quintilian says: “Before all, let the nurses speak properly; the boy will hear them first, and will try to shape his words by imitating them.” This applies chiefly to the pronunciation and correct use of words; but much might also be done for the right management of the voice, if every child could grow up among people who speak well.

Have you ever mocked or imitated the habits and contortions of a stammerer?

Beware, lest you also are made to carry the yoke!

It seems a severe but a just punishment, that those who hold up their fellow men to ridicule because of their infirmities are oftentimes similarly afflicted. A young lady who applied to me for relief not long since broke down and shed tears when she told me she had been punished because she mocked a person who was afflicted in the same manner. Many applications for admission to my Institution have been accompanied by letters that told the same sad and pitiful story: “I acquired the habit by mocking.”

Children especially, and, I am sorry to say, many grown persons, having witnessed some peculiar type of stammering or stuttering, which, to them, appears laughable, set about to imitate the poor unfortunate who has

unluckily crossed their path, and to their sorrow many such mimics find that when they wish to discontinue the habit, the monster, with all its horrors, has securely fastened its talons into their flesh, not to be easily shaken off.

Take my advice, then, if you have been habitually mocking the stammerer,—stop it, and stop it at once. The poor unfortunate victim, the target of your jest, has already enough to suffer without bearing the taunts and ridicule of inhuman scoffers.

STAMMERING A DISEASE

That stammering with many persons is a disease, is no longer a doubt in the minds of those who have made a careful study of the subject. Dr. Raphael Cohen cites the case of one family where stammering was transmitted through four generations, the malady usually developing between the second and fifth year, the affliction commencing with a repetition of syllables and words—at first seldom, then often, until it broke out in all its uncontrollable force. This type of stammering has previously been considered by others incurable. Eminent physicians and specialists both in this country and abroad, have been utterly unable to afford any relief to the unfortunate stammerer who was unlucky enough to inherit his difficulty.

Notwithstanding the failure hitherto to afford relief to such cases, a careful glance over the many letters we have received will at once convince the reader that the closing of the nineteenth century has revealed to the

world, among its many other inventions and discoveries, a means for the curing of stammering and stuttering equally adapted to and effective in each and every case, from the mildest type to the most severe, the contortions of which are oftentimes painful to witness, and disgusting beyond description.

STAMMERING THE RESULT OF DISEASE

Stammering with many persons is the result of eruptive disease, such as scarlatina, smallpox, and other kindred disorders; it may be the result of external injuries, sudden fright, or any violent nerve or brain trouble may cause it; in nearly every such case, however, the afflicted individual previously possessed a weak enforcing power of the will over the organs of utterance. Very rarely is stammering caused by any organic defect. In a series of six hundred cases, carefully investigated by Columbat, there was not one case of stammering caused by malformation of the organs.

THE INFLUENCE OF CHILD STAMMERING

There is no doubt but that stammering obtains a bad influence in children. It is detrimental both to the stammerer himself and also to his young associates with whom he comes in contact. Innumerable illustrations could be made in support of this statement. Children are more likely to mimic than grown persons—in fact, they learn to talk almost wholly by imitation and by observation, and nothing seems to

impress itself more forcibly upon their imagination than the antics of the stammerer. In the large majority of cases we have found that persons addicted to stammering are of an extremely sensitive and nervous disposition. This nervousness is usually accompanied with a weakened constitution, which usually becomes more fragile as the stammerer advances in years. If stammering children could be trained for the correction of their defect they would as they advanced in years become as strong and as robust as other persons, but with their affliction constantly in their minds and the effect that stammering has upon the nervous system if neglected, these children, who otherwise would be strong, healthy men and women, become physically unfit for anything more than the ordinary walks of life. Referring again to the effect that association with stammerers may have upon persons who do not suffer from stammering, we know of hundreds of cases of stammering due entirely to child association and mimicry.

Keep your child away from stammering children and especially keep it away from a stammering parent or guardian. There is no doubt that stammering has a deleterious effect upon not only the victim, but also upon other children with whom it comes in contact. The best age at which to treat a child for stammering is as young as it can intelligently understand the necessary exercises and at the same time realize the necessity for a cure.

WHEN TO COMMENCE TREATMENT

While the great number of cases we have treated has proved to us and to others that at no stage have we been unable to successfully combat the difficulty, yet persistency in the habit renders it more difficult to bring the organs back to their normal condition. The longer we continue any habit the more-difficult it becomes to stop it, and this especially is applicable to the subject in question. For this reason no person should deny himself or herself of the privilege available to recover their speech at as early a date as possible.

CLASS EXERCISE

From four to six hours are set aside daily for class exercise, when pupils are expected, unless satisfactory excuse is given, to attend diligently to the work which it is their duty to perform. The exercises are both pleasant and profitable, and are varied to suit the different forms of speech impediment with which we have to deal.

Our treatment is adapted to the indications and directed against the manifestation according to the requirements of each particular case.

We never administer drugs nor medicine of any kind to our pupils nor apply electricity in any form in connection with our treatment.

Much of our success is due to the natural means we employ in overcoming this unnatural difficulty.

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The permanency of our cures we attribute to the physical and mental development of the pupil, noticeable from the beginning of treatment.

These exercises are not only valuable as an auxiliary means, but also open the way and lay the foundation for a lifelong cure. The mental influences become regulated, the will strengthened, and the whole organism apparently transformed into the awakening of a new individuality.

THE RESULT OF STAMMERING

Separated by his affliction and infirmity from society and companionship, the poor, unfortunate stammerer is driven to the solitude of his own unhappy contemplation.

With many stammerers life is an attempt with but little success. In their effort to succeed they are continually kept in a state of fear and anxiety. How many pillows have been saturated with tears, every drop an appeal for free speech? How many hearts have longed for the day to come when humanity would be released from this woeful curse?

This constant strain upon the mind and nerves rapidly consumes vitality. The boy, vigorous as a child, oftentimes finds himself a physical and nervous wreck about the time he should be developing into a magnificent specimen of manhood. The fact that he stammers is never out of his mind; thus he realizes that others have bestowed upon them by nature gifts that he has not, and gradually it becomes second nature for him to

regard himself as an unequal. The ambition which should arouse us all to action in our youth in him is dormant. Sooner or later this vital force that is being gradually undermined perishes, and the victim awakens to find himself prostrated with grief over his sad condition. The mental strain in some cases, the result of stammering, is something awful. Many severe cases develop to such a degree as to cause convulsions. Persons so afflicted oftentimes lose their minds entirely, a fact which statistics prove not infrequently happens.

THE UNFORTUNATE

There stands a person whose face is physically drawn out of shape. His mental faculties are warped. He is not a mute, but still he cannot speak. His thoughts are crippled and confused. To all appearances he is a man, but if we knew him well we would find that in many things he is but a child. The persons who understand his peculiarities are few and his sympathizers are equally rare. His strange silence and timid actions lower him in the estimation of his fellow men. The sweet privilege of social enjoyment is unknown to him. Every undertaking he enters into is abandoned through gloomy forebodings of failure. His thoughts, denied the liberty of oral expression, become as stagnant and unreliable as his manner of acting. His countenance bears a piteous but repulsive appearance and is indicative of a long and fierce battle of successive failures. His consolation is the ridicule and cruel impatience of heartless mimics, who ape him

at every opportunity. At last, pressing deeper into his flesh the poisoned arrows of his terrible infirmity, his burden of sorrow crushes him to the earth.

THE HOPEFUL SIDE OF STAMMERING

While the stammerer has much to be sorrowful over, nevertheless, if he will only look around him and observe the many other ills to which human flesh is heir, he will find much consolation in the fact that there are others who are suffering from greater afflictions than he is.

Is not blindness worse than stammering? To be deprived of the beautiful in nature; to never know the expression of the human countenance; to be an object of dependency and a burden to others, led from place to place as one leads a blind horse with leathern halter, these are the least of the blind man's woes.

What of the hopeless consumptive? Will you willingly exchange your lot for his? You have every confidence and hope of recovery—he, poor unfortunate, has none.

Where is the stammerer who will exchange his life for the life of the mute? Yes, you say, here I am, I will exchange my life for the life of a mute. Then, if this be true, go in silence for the balance of your life. You tell me that the mute is resigned to his infirmity and that in this resignation there is satisfaction and relief. To you this may be true, but to me it would mean an everlasting and never-dying source of remorse and sorrow to know that I was forever speechless to the world. True, the

stammerer often in a sense suffers greater agony than the mute, but he can always harbor a hope for recovery. And what is this life to any of us whether we stammer or not when we have abandoned hope? Hope is the substance on which the soul feeds. Hope for the present. Hope for the future, and hope for the very end. Hope is a never-ending ray of sunshine in the life of every man and woman, and to every stammerer Hope is doubly as dear as to others. The mute can know but little of this joyous thing called hope, but the stammerer is ever hopeful.

What about the cripple? Would you rather stammer than be crippled? Your answer is: I would rather be a cripple than stammer. Yes, but I say, how would you like to stammer and be crippled as well? Here you pause and reply that either one is bad enough. But remember, there are many who suffer both, and how thankful you should be that you have but one to contend with.

There has been a time in the history of this country when stammering could be considered one of the greatest evils and infirmities to which mankind is heir, but at the present time, when modern ideas are supplanting old-time theories, and the stammerer can be entirely relieved of his burden, the old-time poison called stammering has lost much of its former virus and sting.

THE CURE

A careful study of the different methods for the cure of stammering and stuttering, and other speech impedi-

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ments, as practiced by the most successful of those who have within recent years devoted their time and study to the subject, together with the personal experience of having been a most severe stammerer for more than twenty years, proves to me beyond a doubt that only such systems produce cures and permanent results as are founded on an educational basis, where the pupil is disciplined and put through a systematic training, beginning at the foundation and rebuilding the tissues that have naturally become weakened, through lack of proper use, at the same time strengthening and developing the vocal organs.

Probably no other means of cure in the world has met with such remarkable success in ridding humanity of this awful curse as has THE LEWIS PHONOMETRIC METHOD. Our graduates, representing now nearly every State in the Union, and Province of Canada, many of whom had been lifelong sufferers, bear us out in this assertion with their splendid letters of indorsement.

HOME TREATMENT

Many persons have written to me to inquire if I could give them printed or written instructions that would serve the same purpose as their presence at my school, to which questions I have invariably answered, No. While I might possibly give them instructions in a written or printed form, and in a manner from which they might possibly obtain some relief, yet it would prove very unsatisfactory in the end to both pupil and

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instructor. Almost daily we receive communications from persons asking for mail treatment, with offers of remuneration. I invariably refuse offers of this kind, always advising the correspondent that it is absolutely necessary to attend my Institution and remain directly under my personal observation, that I may from day to day (for a short period) assist and direct them to a proper use and development of the organs of speech, which have been so long abused.

TIME FOR EVERYTHING

It is equally as hard to effect a cure in a case of stammering unless attention is paid to the little details of treatment as it is to successfully conduct a large mercantile business without system.

The old proverb, "Take care of the pennies and the dollars will take care of themselves," has been verified a countless number of times, and contains a principle worth while studying. He who pays attention to the minutest details of his business will surely succeed in the end. He who neglects and treats as unworthy of notice the smallest fraction of his duties will ultimately neglect his whole business and end in failure. This also applies to a cure for stammering. Pay attention to every little principle involved in effecting the cure and you cannot but succeed if the method is practical.

If the method you are following be not altogether efficient, you cannot afford to neglect the minutest instruction. On the contrary, you should apply yourself

the more studiously. A poor method poorly applied will give absolutely no results; a good method poorly applied will give some results; a poor method well applied may afford relief; while a good method of treatment well applied will give you an absolute and permanent cure.

Granting the above to be undeniable, we have many things to take into consideration before we can even begin to hope for relief. The main difficulty to contend with in the majority of cases where a cure is looked for is the fact that the stammerer becomes impatient for results and wants a cure all at once.

Let us for a minute draw a comparison between the man who from education, study, and practice would get cured of stammering, and he who would become proficient in any other study as seriously involving his future life as his freedom of speech. The would-be artist does not acquire his knowledge of colors, his delicate touch, an eye for form and beauty, nor his reputation, all in a day. The would-be physician or surgeon expects many weary years of painstaking labor if he shall acquire for himself reputation and skill. The skilled artisan and the mechanic can only be called such after years of study and labor. He who would establish himself as a lawyer does not expect to reach the goal for which he is striving without much patience and study, and so could be quoted numerous other cases, down through all the different walks of life. The would-be artist begins at the mixing of colors, he studies form, texture of canvas, mounting of pictures, quality of brushes, practices delicacy of touch, and blending of shades. If he

be a landscape artist he probably spends whole summers and autumns in rural districts studying the beauties of nature with all her grandeur of color and originality. He then goes abroad and studies the masters, and finally, after many years of earnest plodding, he is rated an artist in the true sense of the word, and then spends the balance of his life trying to make for himself a reputation.

Similar illustrations could be made of the would-be physician, the would-be artisan, the would-be lawyer, the would-be musician, and many other would-bes; but the poor, unfortunate "would-be-cured stammerer" wants to become proficient all at once, and, alas, because he does not speedily find that for which he is in search, he sinks into the unhappy solitude of his own unhappy thoughts and thinks he is the most woe-begone and all-around-afflicted mortal in the world. Let him for an instant compare his lot with that of others so afflicted — many of whom are in a worse condition than he is — hitherto unknown to him. You cannot see the blade of grass grow as it pops its tiny leaf through the moist earth. You cannot see a tree casting forth its leaf. Yet these and other such events follow year in and year out, and are observed gradually as they transpire. The days for miracles have long since passed. Methods for the cure of stammering having for their foundation secrecy and humbuggery, quackery, and misrepresentation, must give way to practical educational methods of treatment, and the sooner the stammerer is brought to realize these facts the better for him and for all other persons concerned.

TIME REQUIRED TO EFFECT A CURE

The length of time required to effect a cure depends largely upon the severity of the case and the application of the pupil to duty. The average case has required from three to six or eight weeks' treatment. We do not guarantee the length of time for treatment required to effect a cure in any particular case, as much depends upon the pupil's aptitude for learning and application. An investigation of our testimonials will prove to the reader, however, that many of our pupils who had been lifelong sufferers were never heard to stammer after their first week's instruction, although they remained with us until the completion of their course.

RESULTS OF TREATMENT

The results of treatment are noticeable on the pupil almost immediately. The depressed, careworn look possessed by many stammerers, the direct result of years of constant worry and battle, gives way to a cheerful expression and buoyant disposition. The improvement physically, in some cases almost from the beginning, is marked. The chest development of some pupils while under treatment has been from three to four inches, the gymnastic exercises being well calculated to build up and strengthen the tissues and muscles that have become weakened through lack of proper exercise and use.

TERMS OF TUITION

Our charges in a case of stammering or stuttering depend upon the extent of the difficulty, as some require much more care and attention than others.

It is impossible to determine the type and severity of any case of stammering or stuttering without first obtaining a thorough knowledge of the manifestations and indications surrounding it. To enable us to gain this knowledge we have prepared a sheet of questions known as our "Question Blank," which when properly filled in will give a complete chain, leading up to the diagnosis of the case. We will be pleased to mail one of our "Question Blanks" to any stammerer upon request, and upon the return of which, carefully and properly filled in, we will pronounce the type of stammering and quote terms for treatment. No charge is made for consultation either by correspondence or otherwise.

OUR GUARANTEE

We will give a written guarantee of an absolute cure in any case of stammering or stuttering when our instructions are followed, and will willingly refund the money paid us as tuition, providing we do not fulfill our promise. Our instructions are easy to follow, there being nothing embodied in our methods of treatment or instruction but what can be easily performed and carried out by any intelligent person over ten years of age.

OUR LOCATION

Centrally located, easy of access for both Americans and Canadians by either rail or water, Detroit, one of the most beautiful cities of the United States, offers superior advantages as a location for an institute for the cure of stammering.

The Lewis Phono-Metric Institute and School for Stammerers is located at Nos. 37-39-41 Adelaide street, just one-half block east of Woodward avenue. This location could not possibly be surpassed. The Public Reception Hall is a large and commodious room, 30 feet long by 18 feet wide, and has been especially furnished for our pupils. A Private Reception Room, a Reading Room, and also a Pupils' Reclining Room have all been comfortably provided and add largely to the other pleasant surroundings of our Institution. Our Business Offices are located in our Main Building, and are conveniently located for the transaction of business. Special precautionary means have been taken to secure the most sanitary equipment possible, toward which purpose in every room in our Institute we have provided highly polished hardwood floors, with floor rugs instead of carpets. Separate baths and lavatories have also been provided for either sex, thus keeping the apartments of ladies entirely separate and apart from those of the gentlemen of our School.

The grounds and surroundings of our buildings are probably the most beautiful of any private grounds on Adelaide street, which in summer time adds largely to the enjoyment of the pupils' visit.

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The bedrooms occupied by our pupils are carefully and thoroughly cared for by competent service, and thus during his entire visit the pupil is made to feel that his home is our home and that our home is his.

The location of our Institute, its pleasant appointment, and thorough equipment and adaptation for the treatment of stammering, added to the superior advantages of our School Residence as a home for the comfort and accommodation of pupils attending, combine in one Institution advantages unequaled anywhere else on this continent.

OUR CARE FOR CHILDREN

While the majority of our patients are adults we, nevertheless, have at all seasons of the year a number of children in attendance, and for this reason have taken special pains to provide comfortably for their wants. Parents can rest assured and satisfied that their children placed in our care will be well and properly cared for. We surround our pupils with wholesome literature and moral influences in every respect, and in fact make the attention which we give to the younger members of our classes one of the important features of our work.

OUR SUCCESS

The Lewis Phono-Metric Institute and School for Stammerers enjoys a larger regular attendance of pupils than any other institution of its kind anywhere. It covers more than four times as much floor space as any other stammerers' school. It is the only institute for the cure of stammering in the world that boards and

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otherwise provides comfortable accommodations for its patrons. It is the only school of its kind so thoroughly equipped for the purpose to which it is adapted.

The only Institution of its kind with a competent and experienced staff of instructors.

It is an Institution for the cure of stammering that has succeeded from the first, while hundreds of others have utterly failed. It can refer to more pupils cured than any other institution of its kind in America.

It is the only Institution of its kind that will give a written guarantee of an absolute cure.

The success of the Lewis Phono-Metric Institute and School for Stammerers is largely attributable to thoroughness in its methods and uprightness in its business principles.

SCHOOL RESIDENCE AND HOME FOR PUPILS

The School Residence of the Lewis Phono-Metric Institute, a comfortable, homelike dormitory, has been arranged for the accommodation of pupils attending, and is conveniently situated near the Institute.

Many pupils who attend our school regret the time for their departure, so pleasant has their visit been to them.

The entire class board together, each of the pupils being provided with a comfortable room and all the accommodations of their own homes at a reasonable price.

Musicales, debates, at homes, etc., given in the parlors, supply evening entertainment for the class, and

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everything that can be done to make it pleasant for the pupils is carefully looked after.

MEETING PUPILS AT THE TRAIN

Persons unaccustomed to city life need have no hesitation about coming to Detroit to attend our Institute, as we make it a special feature of our work, when requested, to meet our pupils at the train upon their arrival in the city. Ladies and children are especially cared for in this respect, the usual means of identification being a small white bowknot, which the pupil wears pinned to the lapel of the coat, and in which way we recognize him at once, immediately he steps from the train.

ACCOMMODATION

THE Lewis Phono-Metric Institute is open to receive pupils at all seasons of the year, its doors never having been closed for more than a day's vacation. Parents who desire to be present with their children during treatment, or who wish to send a guardian with them, will be accommodated in our Institution or may board elsewhere, according to their option. As our attendance at all seasons of the year is usually very large it is always well to arrange for accommodation before coming, thus avoiding inconvenience, disappointment, or delay. Our accommodations are first-class in every respect, including hardwood floors, electric light, and hot water heating. Rooms may be engaged separately with private bath or en suite. Our prices for accommodation are as reasonable as one will find elsewhere in the city.

REFERENCE AND RECOMMENDATION

IN AN effort to make this book an acceptable volume for the library and the home we have endeavored as far as possible to omit from its contents anything that might be judged as advertising in the usually accepted meaning of the term.

We will be pleased to send to any person upon request another book containing letters of Recommendation and Reference which speak in the highest terms of the success of our efforts in behalf of the stammerer and the reliability of our treatment. In addition to strong letters of Recommendation from the Mayor of Detroit, our Institution receives also (as is evidenced by our Book of Recommendations and References) the hearty indorsement and support of many well-known Educators, Clergymen, University Professors, Business and Professional men everywhere.

We shall be pleased also to submit by letter to persons who desire it the names and addresses of hundreds of our graduates who are always willing and ready, in consideration of their cure and the great benefit they have derived from our training, to testify to the merits

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of our treatment by promptly replying to any inquiries they receive regarding our work. Persons who desire to further investigate the merits of our Institution should write to us at once for our Book of Recommendations and References. Ask also for a list of names and addresses of pupils who have been cured under our instruction.

All business communications pertaining to terms, applications, particulars regarding treatment, etc., should be addressed directly to our office and will receive prompt attention.

THE LEWIS PHONO-METRIC INSTITUTE
AND SCHOOL FOR STAMMERERS,

37-41 Adelaide St., Detroit, Mich.

NOTE: If the names and addresses of persons who stammer are furnished us we shall be pleased to mail them copies of this book without in any way mentioning the source of information.

THE PHONO-METER

A monthly devoted exclu-
sively to the interest of per-
sons who stammer ❁ ❁ ❁

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GEO. ANDREW LEWIS

THE first number of the PHONO-METER was published January 1st, 1897, since which time it has appeared monthly, and is sent regularly to subscribers in every State in the Union and Province of Canada, and in fact to all parts of the world. It contains interesting and valuable articles on stammering from the pens of the best authorities and is teeming full of helpful thoughts and suggestions suitably adapted for home treatment.

Considering the small price of subscription, FIFTY CENTS A YEAR, no stammerer can afford to be without it. Write to-day for (free) sample copy. One number may be worth to you many times the price of a full year's subscription.

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